CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

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TENTATIVE ORDER NPDES No. CA0038849

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL AND INDUSTRIAL WASTEWATER DISCHARGES OF MERCURY TO SAN FRANCISCO BAY

The following Dischargers are subject to waste discharge requirements as set forth in this Order, for the purpose of implementing the San Francisco Bay Mercury Total Maximum Daily Load (TMDL) wasteload allocations for municipal and industrial wastewater discharges to San Francisco Bay and its contiguous bay segments:

Table 1. Discharger Information

Discharger				
Name of Facility	Con attack ad Takina 4A and 4D for Discharger Information			
Facility Address	See attached Tables 1A and 1B for Discharger Information.			
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified these discharges as either major or minor discharges as indicated in Tables 1A and 1B.				

Discharges from the discharge points identified below are subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water	
See attached Tables 2A and 2B for Discharge Locations.					

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	<adoption date=""></adoption>
This Order shall become effective on:	January 1, 2008 ¹
This Order shall expire on:	December 31, 2012
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	Not applicable.

¹This Order becomes effective on the latter of this date or on the 1st (first) of the month after the TMDL for Mercury in San Francisco Bay becomes effective, except that if the San Francisco Bay Mercury TMDL is not approved by U.S. EPA or is approved in a form that is substantially different than was approved by the Regional Water Board on August 9, 2006, and implemented herein, this Order shall not become effective.

IT IS HEREBY ORDERED, that this Order supersedes all mercury requirements for Discharge Points regulated by the Order Nos. listed in Attachment B, except for applicable enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Dischargers shall comply with the requirements in this Order.

l, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on the date indicated above.	
Bruce H. Wolfe, Executive Officer	_

Table 1A. Municipal Discharger Information

Discharger	Name of Facility	Facility Address	Minor/ Major	
American Canyon, City of	Wastewater Treatment and Reclamation Facility	151 Mezzetta Court American Canyon, CA 94503 Napa County	Major	
Benicia, City of	Benicia Wastewater Treatment Plant	614 East Fifth Street Benicia, CA 94510 Solano County	Major	
Burlingame, City of	Burlingame Wastewater Treatment Plant	1103 Airport Boulevard Burlingame, CA 94010 San Mateo County	Major	
Calistoga, City of	Dunaweal Wastewater Treatment Plant	1185 Dunaweal Lane Calistoga, CA 94515 Napa County	Minor	
Central Contra Costa Sanitary District	Central Contra Costa Sanitary District Wastewater Treatment Plant	5019 Imhoff Place Martinez, CA 94553 Contra Costa County	Major	
Central Marin Sanitation Agency	Central Marin Sanitation Agency Wastewater Treatment Plant	1301 Andersen Drive San Rafael, CA 94901 Marin County	Major	
Contra Costa County Sanitation District No. 5, Port Costa	Port Costa Wastewater Treatment Plant	End of Canyon Lake Drive Port Costa, CA 94569 Contra Costa County	Minor	
Delta Diablo Sanitation District	Wastewater Treatment Plant	2500 Pittsburg-Antioch Highway Antioch, CA 94509 Contra Costa County	Major	
East Bay Dischargers Authority	EBDA Common Outfall Hayward Water Pollution Control Facility San Leandro Water Pollution Control Plant Oro Loma/Castro Valley Sanitary Districts Water Pollution Control Plant Raymond A. Boege Alvarado Wastewater Treatment Plant Livermore-Amador Valley Water Management Agency (LAVWMA) Export and Storage Facilities Dublin San Ramon Services District Wastewater Treatment Plant City of Livermore Water Reclamation Plant	- EBDA Common Outfall 14150 Monarch Bay Drive - San Leandro, CA 94577 Alameda County	Major	
East Bay Municipal Utilities District	East Bay Municipal Utility District, Special District No. 1 Wastewater Treatment Plant	2020 Wake Avenue Oakland, CA 94607 Alameda County	Major	
	Point Isabel Wet Weather Facility	2755 Isabel Street Richmond, CA 94804 Alameda County	Minor	
	San Antonio Creek Wet Weather Facility	225 5 th Avenue Oakland, CA 94606 Alameda County	Minor	

Discharger	Discharger Name of Facility		Minor/ Major
	Oakport Wet Weather Facility	5597 Oakport Street Oakland, CA 94621 Alameda County	Minor
East Brother Light Station, Inc. ¹	East Brother Light Station	117 Park Place Point Richmond, CA 94801 Contra Costa County	Minor
Fairfield-Suisun Sewer District	Fairfield-Suisun Wastewater Treatment Plant	1010 Chadbourne Road Fairfield, CA 94534 Solano County	Major
Las Gallinas Valley Sanitary District	Las Gallinas Valley Sanitary District Sewage Treatment Plant	300 Smith Ranch Road San Rafael, CA 94903 Marin County	Major
Marin County (Paradise Cove), Sanitary District No. 5 of	Paradise Cove Treatment Plant	3700 Paradise Drive Tiburon, CA 94920 Marin County	Minor
Marin County (Tiburon), Sanitary District No. 5 of	Wastewater Treatment Plant	2001 Paradise Drive Tiburon, CA 94920 Marin County	Minor
Millbrae, City of	Water Pollution Control Plant	400 East Millbrae Avenue Millbrae, CA 94030 San Mateo County	Major
Mt. View Sanitary District	Mt. View Sanitary District Wastewater Treatment Plant	3800 Arthur Road Martinez, CA 94553 Contra Costa County	Major
Napa Sanitation District	Soscol Water Recycling Facility	1515 Soscol Ferry Road Napa, CA 94558 Napa County	Major
Novato Sanitary District	The Novato Treatment Plant, The Ignacio Treatment Plant	Novato Treatment Plant: 500 Davidson Street Novato, CA 94945 Ignacio Treatment Plant: 445 Bel Marin Keys Blvd. Novato, CA 94945 Both in Marin County	Major, Major
Palo Alto, City of	Palo Alto Regional Water Quality Control Plant	2501 Embarcadero Way Palo Alto, CA 94303 Santa Clara County	Major
Petaluma, City of	Municipal Wastewater Treatment Plant	950 Hopper Street Petaluma, CA 94952 Sonoma County	Major
Pinole, City of	Pinole-Hercules Water Pollution Control Plant	11 Tennent Avenue Pinole, CA, 94564 Contra Costa County	Major
Rodeo Sanitary District	Rodeo Sanitary District Water Pollution Control Facility	800 San Pablo Avenue Rodeo, CA 94572 Contra Costa County	Major
Saint Helena, City of	City of St. Helena Wastewater Treatment and Reclamation Plant	1 Thomann Lane St. Helena, CA 94574 Napa County	Minor
San Francisco (Airport), City and County of	Mel Leong Treatment Plant	918 Clearwater Drive San Francisco International Airport San Francisco,CA 94128	Major
San Francisco (Southeast Plant), City and County of	Southeast Water Pollution Control Plant	750 Phelps Street San Francisco, CA 94124 San Francisco County	Major

Discharger	Name of Facility	Facility Address	Minor/ Major
San Jose/Santa Clara, Cities of	San Jose/Santa Clara Water Pollution Control Plant	4245 Zanker Road San Jose, CA 95134 Santa Clara County	Major
San Mateo, City of	City of San Mateo Wastewater Treatment Plant	2050 Detroit Drive San Mateo, CA 94404 San Mateo County	Major
Sausalito-Marin City Sanitary District	Sausalito-Marin City Sanitary District Wastewater Treatment Plant	#1 Fort Baker Road Sausalito, CA 94965 Marin County	Major
Seafirth Estates Company and Property Owners within the Seafirth Estates Subdivision ¹	Seafirth Estates Wastewater Treatment Plant	33 Seafirth Place Tiburon, CA 94920 Marin County	Minor
Sewerage Agency of Southern Marin	Wastewater Treatment Plant	450 Sycamore Avenue Mill Valley, CA 94941 Marin County	Major
Sonoma Valley County Sanitary District			Major
South Bayside System Authority	South Bayside System Authority Wastewater Treatment Plant	1400 Radio Road Redwood City, CA 94065 San Mateo County	Major
South San Francisco and San Bruno, Cities of	South San Francisco and San Bruno Water Quality Control Plant	195 Belle Air Road South San Francisco, CA 94080 San Mateo County	Major
Sunnyvale, City of	Sunnyvale Water Pollution Control Plant	1444 Borregas Avenue, Sunnyvale, CA 94089 Santa Clara County	Major
US Naval Support Activity, Treasure Island	Wastewater Treatment Plant	681 Avenue M, Treasure island San Francisco, CA 94130-1807	Major
Vallejo Sanitation and Flood Control District	Vallejo Sanitation and Flood Control District Wastewater Treatment Plant	450 Ryder Street Vallejo, CA 94590 Solano County	Major
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	West County Agency Combined Outfall	601 Canal Blvd. Richmond, CA 94804 Contra Costa County	Major
Yountville, Town of	Municipal Wastewater Treatment Plant	7501 Solano Avenue Yountville, CA 94599 Napa County	Minor

¹ This Discharger serves domestic customers but is not a municipal government agency.

Table 1B. Industrial Discharger Information

Discharger	Name of Facility	Facility Address	Minor/ Major	
Industrial Wastewater Discharger	(Non-Petroleum Refinery):			
C&H Sugar Company Inc. and Crockett Sanitary Department	Phillip F. Meads Water Treatment Plant	830 Loring Avenue Crockett, CA 94525 Contra Costa County	Major	
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	Crockett Cogeneration Plant	550 Loring Avenue Crockett, CA 94525-1232 Contra Costa County	Minor	
The Dow Chemical Company	The Dow Chemical Company	901 Loveridge Road Pittsburg, CA 94565 Contra Costa County	Major	
General Chemical West, LLC	Pittsburg Plant	501 Nichols Road Pittsburgh, CA 94565 Contra Costa County	Major	
GWF Power Systems L. P., Site I	GWF -Site I (E. Third St.) Power Plant	895 East 3rd Street Pittsburg, CA 94565 Contra Costa County	Minor	
GWF Power Systems L. P., Site V	GWF - Site V (Nichols Rd) Power Plant	555 Nichols Road Bay Point, CA 94565 Solano County	Minor	
Pacific Gas and Electric Company (PG&E)	PG&E Shell Pond	1/2 Mile Northwest of North Broadway Street Bay Point CA 94565 Contra Costa County	Minor	
Rhodia, Inc.	Sulfuric Acid Regeneration Martinez Plant	100 Mococo Road Martinez, CA 94553 Contra Costa County	Major	
San Francisco City and County of, (Airport Commission)	San Francisco International Airport Mel Leong Treatment Plant, Industrial Plant	676 McDonnell Road San Francisco, CA 94128 San Francisco County	Major	
Mirant Delta, LLC Pittsburg Power Plant Plant, Industrial Plant Pittsburg Power Plant		Mirant Delta LLC, Pittsburg Power Plant 696 W. 10th Street Pittsburg, CA 94565 Contra Costa County	Major	
Mirant Potrero LLC Potrero Power Plant		Mirant Potrero, LLC, Potrero Power Plant 1201-A Illinois Street San Francisco, CA 94107 San Francisco County	Major	
USS-Posco Industries	Industries Pittsburg Plant		Major	
Industrial Wastewater Discharger	(Petroleum Refinery):	Contra Costa County	•	
Chevron Products Company	Richmond Refinery	841 Chevron Way Richmond, CA 94801 Contra Costa County	Major	
ConocoPhillips	San Francisco Refinery	1380 San Pablo Avenue Rodeo, CA 94572-1354 Contra Costa County	Major	
Shell Oil Products US and Equilon Enterprises LLC	Shell Martinez Refinery	3485 Pacheco Blvd Martinez CA 94553 Contra Costa County	Major	

Discharger	Name of Facility	Facility Address	Minor/ Major
Tesoro Refining & Marketing Co.	Golden Eagle Refinery	150 Solano Way Martinez, CA 94553 Contra Costa County	Major
Valero Refining Company	Valero Benicia Refinery	3400 East Second Street Benicia, CA 94510-1005 Solano County	Major

Table 2A. Municipal Discharger Location Information

Discharger	Discharge Point(s)	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
	001-S	38° 11' 3.7" N	122° 16' 39.0" W	North Slough
American Canyon, City of	003-R	38° 11' 5.7" N	122° 16' 44.8" W	Constructed freshwater wetlands
Benicia, City of	E-001	38° 02' 30" N	122° 09' 03" W	Carquinez Strait
Burlingame, City of	E-001	37° 39' 55" N	122° 21' 41" W	Lower San Francisco Bay
Calistoga, City of	001	38° 33' 34" N	122° 33' 28" W	Napa River
	002	38° 33' 13" N	122° 33' 40" W	Napa River
Central Contra Costa Sanitary District	001	38° 2' 44" N	122° 5' 55" W	Suisun Bay
Central Marin Sanitation Agency	001	37° 56' 54" N	122° 27' 23" W	Central San Francisco Bay
Contra Costa County Sanitation District No. 5, Port Costa	001	38° 02' 55" N	122° 10′ 56" W	Carquinez Strait
Delta Diablo Sanitation District	E-001	38° 01' 40" N	121° 50' 14" W	New York Slough
East Bay Dischargers Authority, including City of Hayward, City of San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, Union Sanitary District, Livermore-Amador Valley Water Management Agency (LAVWMA), Dublin San Ramon Services District, and City of Livermore	001	37° 41' 40" N	122 ° 17' 42" W	Lower San Francisco Bay
EBMUD – Main Wastewater Treatment Plant	E-001	37° 49' 2 " N	122° 20' 55" W	Central San Francisco Bay
EBMUD – Point Isabel Wet Weather Facility	E-001	37°53'43"N	122°19'24"W	Richmond Inner Harbor, part of Central San Francisco Bay
EBMUD – San Antonio Creek Wet Weather Facility	E-002	37°47'30"N	122°15'44"W	Oakland Inner Harbor, Part of Lower San Francisco Bay
East Bay Municipal Utilities District – Oakport Wet Weather Facility	E-003	37°45′39"N	122°12'52"W	Oakland Inner Harbor, part of lower San Francisco Bay
East Brother Light Station, Inc.1	E-001	37° 57' 48" N	122° 25' 55" W	San Pablo Bay
	E-001	38° 12' 33" N	122° 03' 24" W	Boynton Slough
Fairfield-Suisun Sewer District	E-002	38° 12' 52" N	122° 03' 56" W	Boynton Slough
anneid-daladri dewer bistrict	E-003	38° 12' 35" N	122° 03' 29" W	Boynton Slough
	E-005	38° 14' 06" N	122° 03' 31" W	Ledgewood Creek
Las Gallinas Valley Sanitary	E-001	38° 01' 32" N	122° 30' 58" W	Miller Creek
District	E-002	38° 01' 36" N	122° 30' 45" W	Miller Creek
Marin County (Paradise Cove), Sanitary District No. 5 of	001	37 ° 53' 50" N	122 ° 27' 40" W	Central San Francisco Bay
Marin County (Tiburon), Sanitary District No. 5 of	E-001	37° 52' 12" N	122° 27' 5" W	Raccoon Strait, Central San Francisco Bay
Millbrae, City of	E-001	37° 39' 55" N	122° 21' 41" W	Lower San Francisco Bay
Mt. View Sanitary District	E-001	38° 01' 12" N	122° 05' 47" W	Peyton Slough, a tributary to Carquinez Strait
Napa Sanitation District	E-001	38° 14' 09"N	122° 17' 10" W	Napa River
Novato Sanitary District	E-003	38° 03' 36" N	122° 29' 24" W	San Pablo Bay
Palo Alto, City of	E-001	37° 27' 30"N	122° 06' 37" W	An unnamed manmade channel, a tributary to Lower San Francisco Bay

Discharger	Discharge Point(s)	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
	E-002	37° 26′ 30″ N	122° 06' 45" W	Renzel Marsh Pond, a tributary to Matedero Creek
Petaluma, City of	E-001	38° 12' 33" N	122° 34' 22" W	Petaluma River
Pinole, City of	001	38° 03' 06" N	122° 14' 55" W	San Pablo Bay
•	002	38° 00' 47" N	122° 17' 45" W	San Pablo Bay
Rodeo Sanitary District	001	38° 03' 06" N	122° 14' 55" W	San Pablo Bay
Saint Helena, City of	E-001	30° 30'10" N	122° 26' 15" W	Napa River
San Francisco (Airport), City and County of	E-001	37° 39' 55" N	122° 21' 41" W	Lower San Francisco Bay
San Francisco (Southeast Plant), City and County of	E-001	37 [°] 44' 58" N	122 [°] 22' 22" W	Lower San Francisco Bay
San Jose/Santa Clara, Cities of	E-001	37° 26′ 06″N	121° 57' 08" W	Artesian Slough, a tributary to Coyote Creek and South San Francisco Bay
San Mateo, City of	E-001	37° 34' 50" N	122° 14' 45" W	Lower San Francisco Bay
Sausalito-Marin City Sanitary District	001	37° 50' 37" N	122° 28' 3" W	Central San Francisco Bay
Seafirth Estates Company and Property Owners within the Seafirth Estates Subdivision ¹	001	37° 45' 08" N	122° 28' 08" W	Central San Francisco Bay
Sewerage Agency of Southern Marin	E-001	37° 52' 12" N	122° 27' 5" W	Raccoon Strait
Sonoma Valley County Sanitary District	001	38° 14' 14" N	122° 25' 51" W	Schell Slough, a tributary to the San Pablo Bay
South Bayside System Authority	001	37° 33' 40" N	122° 13' 02" W	Lower San Francisco Bay
South San Francisco and San Bruno, Cities of	E-001	37° 39' 55" N	122° 21' 41" W	Lower San Francisco Bay
Sunnyvale, City of	E-001	37° 25' 13" N	122° 1' 0" W	Moffett Channel, a tributary to Guadalupe Slough and South San Francisco Bay
US Naval Support Activity, Treasure Island	E-001	37° 49' 50" N	122° 21' 25" W	San Francisco Bay
	E-001	38° 3' 53" N	122 ° 13' 42" W	Carquinez Strait
Vallejo Sanitation and Flood Control District	E-002	38° 5' 23" N	122° 15' 12" W	Mare Island Strait, a tributary to Carquinez Strait
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	E-001	37°54'47"N	122°25'06"W	Central San Francisco Bay
Yountville, Town of	E-001	38° 24' 30''N	122°20'25''W	Napa River

¹ This Discharger serves domestic customers but is not a municipal government agency.

Table 2B. Industrial Discharger Location Information

Discharger	Discharge Point	Discharge Point Latitude	Discharge Point Longitude	Receiving Water	
Industrial Wastewater Discharger (Non-Petroleum Refinery):					
C&H Sugar Company Inc. and Crockett Sanitary Department	002	38° 03' 30" N	122° 13' 28" W	Carquinez Strait	
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	E-001	38° 3′ 22″ N	122° 13′ 5″ W	Carquinez Strait	
The Dow Chemical Company	E-001	38° 1' 48" N	121° 51' 7" W	New York Slough	
General Chemical West, LLC	E-001	38° 2' 48" N	121° 59' 10" W	Suisun Bay	
GWF Power Systems L. P.	E-001	38° 2' 00" N	121° 52' 15" W	New York Slough	
GWF Power Systems L. P.	E-001	38° 3′ 15″ N	121° 59' 15" W	New York Slough	
Pacific Gas and Electric Company (PG&E)	E-001	38° 2' 34" N	121° 57' 14" W	Suisun Bay	
Rhodia, Inc.	E-001	38° 2' 18" N	122° 7' 1" W	Suisun Bay	
San Francisco Airport Commission	E-001	37° 39', 55" N	122° 21' 41" W	Lower San Francisco Bay	
Mirant Delta, LLC	E-001 ^(a)	38° 2' 29" N	121° 53' 25" W	Suisun Bay	
Mirant Potrero LLC	E-001 ^(a)	37° 45' 23" N	122° 22' 52" W	San Francisco Bay	
USS-Posco Industries	E-001	38° 1' 48" N	121° 51' 32" W	Suisun Bay	
033-i osco industries	E-002	38° 1' 51" N	121° 51' 58" W	Suisun Bay	
Industrial Wastewater Discharger	(Petroleum R	Refinery):			
Chevron Products Company	E-001	37° 58' 15" N	122° 25' 45" W	San Pablo Bay	
ConocoPhillips	E-002	38° 3' 22" N	122° 15' 36" W	San Pablo Bay	
Shell Oil Products US and Equilon Enterprises LLC	E-001	38° 1' 56" N	122° 7' 44" W	Carquinez Strait	
Tesoro Refining & Marketing Co.	E-001	38° 2' 54" N	122° 5' 22" W	Suisun Bay	
Valero Refining Company	E-001	38° 3' 18" N	122° 7' 7" W	Suisun Bay	

⁽a) This Order applies to the mercury discharges from internal waste streams discharged through these discharge points, and not to the once through cooling water discharges of these discharge points.

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I. FACILITY INFORMATION

The following Dischargers are subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger		
Name of Facility	See Tables 1A and 1B above.	
Facility Address		
Facility Contact, Title, and		
Phone		
Mailing Address	See Tables 4A and 4B below.	
Type of Facility		
Facility Design Flow		

Table 4A. Additional Information on Municipal Facility (see also Table 1A)

Discharger	Facility Contact, Title, and Phone	Mailing Address	Effluent Description	Facility Design Flow (mgd)
American Canyon, City of	Robert C. Weil Public Works Director (707) 647-4550	300 Crawford Way American Canyon, CA 94503	Secondary	2.5
Benicia, City of	Jerry Gall Superintendent (707)-746-4336	Same as Facility Address	Secondary	4.5
Burlingame, City of	Phil Scott, Public Works Superintendent (650)-738-4663	501 Primrose Burlingame, CA 94010	Secondary	5.5
Calistoga, City of	Paul Wade Public Works Director (707) 942-2828 and Water Systems Super't (707) 942-2837or (707) 942-2847	414 Washington Street Calistoga, CA 94515	Secondary	0.84
Central Contra Costa Sanitary District	Douglas J. Craig Director of Operations (925) 228-9500	Same as Facility Address	Secondary	53.8
Central Marin Sanitation Agency	Robert Cole Environmental Services Manager (415) 459-1455	1301 Andersen Drive San Rafael, CA 94901	Secondary	10
Contra Costa County Sanitation District No. 5, Port Costa	Warren Lai (925) 313-2253 wlai@pw.co.contra- costa.ca.us	Contra Costa County Public Works 255 Glacier Drive Martinez, CA 94553	Secondary	0.033
Delta Diablo Sanitation District	Gary W. Darling General Manager (925) 756-1920	Same as Facility Address	Secondary	16.5
East Bay Dischargers Authority: EBDA Common Outfall Hayward Water Pollution Control Facility San Leandro Water Pollution Control Plant Oro Loma/Castro Valley Sanitary Districts Water Pollution Control Plant Raymond A. Boege Alvarado Wastewater Treatment Plant Livermore-Amador Valley Water Management Agency (LAVWMA) Export and Storage Facilities Dublin San Ramon Services District Wastewater Treatment Plant City of Livermore Water Reclamation Plant	Charles V. Weir General Manager (510) 278-5910	2651 Grant Avenue San Lorenzo, CA 94580	Secondary	100.7

Discharger	Facility Contact, Title, and Phone	Mailing Address	Effluent Description	Facility Design Flow (mgd)
East Bay Municipal Utilities District Main Wastewater Treatment Plant	Dave Williams Director of Wastewater	P.O. Box 24055 Oakland, CA	Secondary	120
Point Isabel WWF	(510) 287-1496	94623-1055	Primary	100
San Antonio Creek WWF	(310) 207-1490	94023-1033	Primary	51
Oakport WWF			Primary	158
East Brother Light Station, Inc. ¹	Tom Butt President of East Bros. Light Station Inc. (510)236-7435	117 Park Place Richmond, CA 94801	Secondary	0.00025
Fairfield-Suisun Sewer District	Larry Bahr Regulatory Program Director (707) 429-8930	Same as Facility Address	Advanced Secondary	17.5
Las Gallinas Valley Sanitary District	Mark Williams District Manager (415) 472-1734	300 Smith Ranch Rd San Rafael, CA 94903-1929	Secondary	2.92
Marin County (Paradise Cove), Sanitary District No. 5 of	Robert L. Lynch Interim District Manager (415) 435-1501	P.O. Box 227 Tiburon, CA 94920	Secondary	0.08
Marin County (Tiburon), Sanitary District No. 5 of	Robert L. Lynch Interim District Manager (415) 435-1501	P.O. Box 227 Tiburon, CA 94920	Secondary	0.98
Millbrae, City of	Khee Lim City Engineer (650) 259-2347	621 Magnolia Avenue Millbrae, CA 94030	Secondary	3
Mt. View Sanitary District	David R. Contreras District Manager (925) 228-5635 ext. 32	P. O. Box 2757 Martinez, CA 94553	Advanced Secondary	3.2
Napa Sanitation District	Mr. Tim Healy Assistant General Manager/District Engineer (707) 258-6000 x508	935 Hartle Court Napa, CA 94559	Secondary	15.4
Novato Sanitary District	Beverly James General Manager (415) 892-1694 x111	500 Davidson Street Novato, CA 94945	Secondary	5.4
Palo Alto, City of	Phil Bobel Environmental Compliance Manager (650) 329-2285	2501 Embarcadero Way, Palo Alto, CA 94303	Advanced Secondary	39
Petaluma, City of	Michael J. Ban Director of Water Resources and Conservation (707) 778-4304	Water Resources and Conservation 11 English Street Petaluma, CA 94952	Secondary	5.2
Pinole, City of	Julian Misra Plant Manager (510) 724-8963	1 Tennant Avenue, Pinole, CA, 94564	Secondary	4.06
Rodeo Sanitary District	Steven S. Beall Engineer-Manager 510-799-2970	Same as Facility Address	Secondary	1.14

Discharger	Facility Contact, Title, and Phone	Mailing Address	Effluent Description	Facility Design Flow (mgd)
Saint Helena, City of	Jonathon Goldman Director of Public Works (707) 968-2746	1480 Main Street St. Helena, CA 94574	Secondary	0.05
San Francisco, City and County of (Airport Commission)	Mark Costanzo Utilities Manager (650) 642-4798	676 McDonnell Road San Francisco, CA 94128	Secondary	2.2
San Francisco (Southeast Plant), City and County of	Thomas Franza Assistant General Manager of Wastewater (415) 554-2475	1155 Market St., 11th Floor San Francisco, CA 94103	Secondary	150
San Jose/Santa Clara, Cities of	Dale Ihrke Deputy Director (408)-945-5198	700 Los Esteros Road San Jose, CA 95134	Advanced Secondary	167
San Mateo, City of	Mark Von Aspern Plant Manager (650) 522-7385	Same as Facility Address	Secondary	15.7
Sausalito-Marin City Sanitary District	Robert Simmons General Manager (415) 331-4712	#1 East Road P.O. Box 39 Sausalito, CA 94966-0039	Secondary	1.8
Seafirth Estates Company and Property Owners within the Seafirth Estates Subdivision ¹	Bonner Buehler Plant Operator (415) 388-1345	Same as Facility Address	Secondary	0.0075
Sewerage Agency of Southern Marin	Steve Danehy Manager (415) 388-2402	26 Corte Madera Ave. Mill Valley, CA 94941	Secondary	3.6
Sonoma Valley County Sanitary District	Jim Zambenini Operations Coordinator (707)975-5616	Sonoma County Water Agency P.O. Box 11628 Santa Rosa, CA 95406	Secondary	3
South Bayside System Authority	Daniel Child Manager (650) 594-8411	Same as Facility Address	Secondary	29
South San Francisco and San Bruno, Cities of	Cassie Prudhel Technical Services Director (650) 829-3840	South San Francisco- San Bruno Water Pollution Control Plant 195 Belle Air Road South San Francisco, CA 94080	Secondary	13
Sunnyvale, City of	Lorrie Gervin Division Manager (408) 730-7268	Sunnyvale Water Pollution Control Plant P.O. Box 3707 Sunnyvale, CA 94088-3707	Advanced Secondary	29.5
US Naval Support Activity, Treasure Island	Patricia A. McFadden Brac Field Team Leader San Francisco Bay Area (415) 743-4720	Navy BRAC PMOW 410 Palm Avenue, Bldg 1, Suite 161 Treasure Island, San Francisco, CA 94130-1807	Secondary	2

Discharger	Facility Contact, Title, and Phone	Mailing Address	Effluent Description	Facility Design Flow (mgd)
Vallejo Sanitation and Flood Control District	Barry Pomeroy Director of Operations and Maintenance (707) 644-8949	Same as Facility Address	Secondary	15.5
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	E.J. Shalaby, District Manager 510-620- 6538	2910 Hilltop Drive Richmond, CA 94806	Secondary	18.5
Yountville, Town of	Myke Praul Director of Public Works (707) 944-8851	6550 Yount Street Yountville, CA 94599	Secondary	0.55

¹ This Discharger serves domestic customers but is not a municipal government agency.

Table 4B. Additional Information on Industrial Facility (see also Table 1B)

Discharger	Facility Contact, Title, and Phone	Mailing Address	Type of Facility	Facility Design Flow (mgd)
Industrial Wastewater Discharge		y):		
C&H Sugar	Elizabeth Crowly Environmental Compliance Manager (510) 787-4352	Same as Facility Address	Sugar Cane Crystalline Industry	0.93
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	Christopher Sargent Environmental Coordinator (510) 787-4101	Same as Facility Address	Industrial – Electrical Generation, SIC Code 4931	0.243 (Daily Discharge Rate From 2000 to 2002)
The Dow Chemical Company	Greg Dubitsky General Manager (925) 432-5154	P.O. Box 1398, Pittsburg, CA 94565	Industrial - SIC Code 2811	0.5
General Chemical West, LLC	Reza Lorestany Environmental Health and Safety Engineer (925) 458-7365	Same as Facility Address	Industrial – Chemical and Allied Products, SIC Code 2811	0.31 (Long Term Average)
GWF Power Systems L. P.	Neftali Nevarez (925) 431-1445	4300 Railroad Ave. Pittsburg, CA 94565	Industrial - SIC Code 4911	0.045 (average)
GWF Power Systems L. P.	Neftali Nevarez (925) 431-1445	4300 Railroad Ave. Pittsburg, CA 94565	Industrial - SIC Code 4911	0.047 (average)
Pacific Gas and Electric Company (PG&E)	Robert M. Gray Consulting Environmental Scientist (925) 866-5508	3400 Crow Canyon Road, M-138 San Ramon, CA 94583	Flow- through pond for habitat enhanceme nt	1 (Maximum Average Dry Weather Flow)

Discharger	Facility Contact, Title, and Phone	Mailing Address	Type of Facility	Facility Design Flow (mgd)
Rhodia, Inc.	Anthony Koo Environmental Coordinator (925) 313-3281	Same as Facility Address	Industrial – Chemical and Allied Products, SIC Code 2891	0.779 (Potential Maximum Daily Rate)
San Francisco, City and County of (Airport Commission)	Mark Costanzo Utility Manager (650) 821-7809	P.O. Box 8097 San Francisco, CA 94128	Industrial SIC Code 3721	1.7
Mirant Delta, LLC	Steve Bauman, Sr Environmental Engineer (925) 427-3381	Pittsburg Power Plant P.O. Box 192 Pittsburg, CA 94565	Electric Power generation	506
Mirant Potrero LLC	Steve Bauman Senior Environmental Engineer (925) 427-3381	Mirant Potrero, LLC, Potrero Power Plant, 1201-A Illinois Street San Francisco, CA 94107	Electric Power generation	226
USS-Posco Industries	David Allen Regulations Manager (925) 439-6290	P.O. Box 471 Pittsburg, CA 94565	Industrial - SIC Code 3312	28
Industrial Wastewater Discharge	er (Petroleum Refinery):			
Chevron Products Company	Rich Sandman (510) 242-5017	Same as Facility Address	Industrial - Petroleum Refining	7.6
ConocoPhillips	Dennis Quilici Water Compliance Specialist (510) 245-4403	Same as Facility Address	Industrial – Petroleum Refining	10
Shell Oil Products US and Equilon Enterprises LLC	Steven D. Overman Senior Staff Engineer (925) 313-3281	Same as Facility Address	Industrial – Petroleum Refining	10
Tesoro Refining & Marketing Co.	Rose Pedregosa (925) 370-3625	Same as Facility Address	Industrial - Petroleum Refining	5.1
Valero Refining Company	Marcus Cole Senior Environmental Engineer (707) 745-7807	Same as Facility Address	Industrial - Petroleum Refining	2.34

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Water Board), finds:

A. Background. The dischargers listed in this Order in Tables 1A and 1B (collectively, Dischargers; individually, Discharger) are currently discharging pursuant to the Order Nos. and National Pollutant Discharge Elimination System (NPDES) Permit Nos. as shown in Attachment B. This Order is the mercury watershed permit and implements the wasteload allocations and implementation requirements of the mercury TMDL and implementation plan adopted by the Regional Water Board on August 9, 2006, and supersedes mercury requirements in those permits.

For the purposes of this Order, references to the "dischargers" or "permittees" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Dischargers herein.

- **B. Facility Description.** The Dischargers listed in Table 1A own and operate secondary and advanced secondary wastewater treatment facilities as described in their respective Orders. The Dischargers listed in Table 1B own and operate wastewater treatment facilities as described in their respective Orders. Wastewater is discharged from the Discharge points indicated in Tables 2A and 2B to San Francisco Bay and its tributaries, which are waters of the United States within the San Francisco Bay watershed. Attachment C shows a map of the Dischargers subject to this Order.
- C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges of mercury from Dischargers' facilities to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).
- **D. Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on detailed technical analyses which provide the foundation for the mercury TMDL. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through G are also incorporated into this Order.
- **E. California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.
- **G. Water Quality-Based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order sets forth water quality-based effluent limitations for mercury,

which implement and are consistent with the assumptions and requirements of the mercurty TMDL wasteload allocations.

H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the San Francisco Bay Basin, Water Quality Control Basin (Region 2) (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the San Francisco Bay are as follows:

Table 5. Basin Plan Beneficial Uses

Receiving Water Name	Beneficial Use(s)
San Francisco Bay and Applicable Tributaries – See individual Order Nos. (Attachment B) for specific Beneficial Uses that apply.	Agricultural Supply (AGR), Cold Freshwater Habitat (COLD), Ocean, Commercial, and Sport Fishing (COMM), Estuarine habitat (EST), Industrial Service Supply (IND), Marine Habitat (MAR), Fish Migration (MIGR), Municipal and domestic Supply (MUN), Navigation (NAV), Industrial Process Supply (PROC), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC1), Noncontact Water Recreation (REC2), Shellfish Harvesting (SHELL), Fish Spawning (SPWN), Warm Freshwater Habitat (WARM)

Requirements of this Order implement the Basin Plan.

The Regional Water Board adopted a Basin Plan Amendment on December 13, 2006, that establishes new water quality objectives for mercury, and that establishes the San Francisco Bay Mercury TMDL to attain the new mercury objectives in San Francisco Bay and contiguous bay segments. The new objectives and TMDL become effective after approval by the State Water Board and USEPA. Elevated mercury concentrations currently exist in the tissues of fish, and methylmercury, a highly toxic form of mercury, is a persistent bioaccumulative pollutant. The mercury TMDL calls for reduction of mercury mass loadings to San Francisco Bay. Additional details regarding mercury sources to San Francisco Bay, and technical information related to the San Francisco Bay Mercury TMDL, are provided in the Fact Sheet. The purpose of this Order is to implement the San Francisco Bay Mercury TMDL wasteload allocations for Dischargers listed in Tables 1A and 1B.

I. State Implementation Policy. On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the California Toxics Rule and National Toxics Rule, and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes

- implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- J. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharges are consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.
- K. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. Because the water quality-based effluent limitations in this Order are based on a TMDL, there is no backsliding.
- L. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.
- M. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Dischargers must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Dischargers. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- N. Provisions and Requirements Implementing State Law. Not applicable.
- O. Notification of Interested Parties. The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharges and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- **P. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharges. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Municipal Discharger Effluent Limits

The mass and concentration of mercury in the effluent at the Discharge Points indicated in Table 4A for each Discharger shall not exceed the limitations in Table 6. Monitoring locations are described in Attachment E of this Order.

Table 6. Municipal -- Individual Mercury Effluent Limitations

Discharger	Average Annual Mercury Mass Effluent Limit ^(1,2,5) (kg/yr)	Average Monthly Concentration-Based Effluent Limit ⁽²⁾ (µg/L)
American Canyon, City of	0.12	0.023
Benicia, City of	0.088	0.087
Burlingame, City of	0.089	0.087
Calistoga, City of	0.016	0.087
Central Contra Costa Sanitary District	2.23	0.087
Central Marin Sanitation Agency	0.18	0.087
Contra Costa County Sanitation District No. 5, Port Costa	0.0072	0.087
Delta Diablo Sanitation District	0.31	0.087
East Bay Dischargers Authority, including City of Hayward, City of San Leandro, Oro Loma Sanitary District, Castro Valley Sanitary District, Union Sanitary District, Livermore-Amador Valley Water Management Agency (LAVWMA), Dublin San Ramon Services District, and City of Livermore	3.6	0.087
East Bay Municipal Utilities District, including its Wastewater Treatment Plant and Wet Weather Facilities	2.6	0.087
East Brother Light Station, Inc. (3)	0.00001	0.087
Fairfield-Suisun Sewer District	0.22	0.023
Las Gallinas Valley Sanitary District	0.17	0.087
Marin County (Paradise Cove), Sanitary District No. 5 of	0.00055	0.087
Marin County (Tiburon), Sanitary District No. 5 of	0.0099	0.087
Millbrae, City of	0.052	0.087
Mt. View Sanitary District	0.034	0.023
Napa Sanitation District	0.28	0.087
Novato Sanitary District	0.079	0.087
Palo Alto, City of	0.38	0.023
Petaluma, City of	0.063	0.087
Pinole, City of	0.055	0.087
Rodeo Sanitary District	0.060	0.087
Saint Helena, City of	0.047	0.087
San Francisco (Airport), City and County of	0.032	0.087
San Francisco (Southeast Plant), City and County of	2.7	0.087
San Jose/Santa Clara, Cities of	1.0	0.023
San Mateo, City of	0.32	0.087
Sausalito-Marin City Sanitary District	0.078	0.087

Discharger	Average Annual Mercury Mass Effluent Limit ^(1,2,5) (kg/yr)	Average Monthly Concentration-Based Effluent Limit ⁽²⁾ (µg/L)
Seafirth Estates Company and Property Owners within the Seafirth Estates Subdivision ⁽³⁾	0.00036	0.087
Sewerage Agency of Southern Marin	0.13	0.087
Sonoma Valley County Sanitary District	0.041	0.087
South Bayside System Authority	0.53	0.087
South San Francisco and San Bruno, Cities of	0.29	0.087
Sunnyvale, City of	0.15	0.023
US Naval Support Activity ⁽³⁾ (Treasure Island)	0.026	0.087
Vallejo Sanitation and Flood Control District	0.57	0.087
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	0.38	0.087
Yountville, Town of	0.040	0.087
Total ⁽⁴⁾	17	Not applicable

Footnotes:

- (1) Compliance with the Average Annual Mercury Mass Limitations is determined annually for each Discharger each calendar year, and is attained if the sum of the individual Dischargers' mercury mass emissions, calculated as described below, is not greater than the aggregate mass emission limit of 17 kg/yr. If the sum of the individual Dischargers' mercury mass emission(s) is greater than 17 kg/yr, the Discharger(s) whose mercury mass emission(s) exceed(s) its (their) individual limitation(s) in Table 6, shall be deemed to be in violation of its (their) mercury mass limitation(s). For compliance determination, mass emissions shall be determined as defined below:
 - a. The total annual aggregate mass emission shall be the sum of the individual annual mass emissions from each Discharger. The sum shall be rounded to the nearest kilogram for comparison with the 17 kg/yr.
 - b. The annual average mass emission for each Discharger shall be computed for the period January 1 through December 31, annually.
 - c. The annual average mass emission for each Discharger listed in Table 6 above shall be the sum of monthly emissions on a calendar year basis and computed as follows:

Annual Mass Emission,
$$kg / year = \sum (Monthly Mass Emission Rates, kg / month)$$

or, for Dischargers with less frequent mercury monitoring than monthly, the Annual Mass Emission shall be computed using the arithmetic average of available monthly mass emissions as follows:

$$Annual\ Mass\ Emission, kg\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions} Calculated\right) *12mo\ /\ year$$

where

Monthly Mass Emission,
$$kg / mo = \left(\frac{0.003785}{N}\right) * \left(\sum_{i=1}^{N} Q_i C_i\right) * 30.5 = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} Q_i C_i\right)$$

and where

 C_i = mercury concentration of each individual sample, $\mu g/l$

 Q_i = Discharger flow rate on date of sample, millions of gallons per day (mgd)

N = number of samples collected during the month

0.003785 = conversion factor to convert (µg/l)*(mgd) into kg/day

30.5 = number of days in a standard month

0.1154425= product of (conversion factor) (number of standard days per month)

and where Q_i for intermittent Dischargers [Dischargers who do not discharge every day in a calendar month, or have no discharge for an entire month ($Q_i = 0$)] shall be computed as follows:

$$Q_i = \left(\frac{\sum_{d=1}^D Q_d}{30.5}\right)$$

where

Q_d = is the total flow for the day when discharge occurred, million gallons

D = total number of days where discharge occurred in a month

30.5 = number of days in a standard month

- d. The Monthly Mass Emission for a Discharger who provides recycled wastewater for industrial supply, shall include the effluent discharge adjustment granted to the industrial Discharger for its recycled wastewater use as described in III.B and Provision V.C.5 of this Order.
- (2) For compliance determination as defined in Section VI and Attachment A of this Order, the Discharger shall achieve the following, Minimum Level (ML).

Table 7. Minimum Levels

Constituent	Minimum Level	Units
Mercury	0.0005	μg/L

- (3) This Discharger serves domestic customers but is not a municipal government agency.
- (4) Total differs slightly from the column sum due to rounding to the nearest kilogram.
- (5) These Annual Average Mercury Mass Limits represent the San Francisco Bay Mercury TMDL's initial limits for municipal dischargers. In accordance with the TMDL and the compliance schedule provision that the Regional Water Board will submit to USEPA for approval, the Municipal Dischargers listed in this table have 10 years to achieve the interim aggregate load limit and associated individual load limits, and 20 years to achieve the aggregate final wasteload allocation and associated individual wasteload allocations described in the TMDL. These levels are listed on Fact Sheet Table F-5 (Attachment F of this Order). Annual Average Mercury Mass Limits in future reissuances of this permit will reflect these limits and deadlines.

B. Industrial Discharger Effluent Limits

The mass and concentration of mercury in the effluent at the Discharge Points indicated in Table 4B for each Discharger shall not exceed the limitations in Table 8. Monitoring locations are described in Attachment E of this Order.

Table 8. Industrial -- Individual Mercury Effluent Limitations

Permitted Entity	Average Annual Mercury Mass Effluent Limit ^(1,2) (kg/yr)	Average Monthly Concentration-Based Effluent Limit ⁽²⁾ (µg/L)					
Industrial Wastewater Discharger (Non-Petroleum Refinery):							
C&H Sugar Company Inc., and Crockett Sanitary	0.0013	0.21					
Department 19 19 19 19 19 19 19 19 19 19 19 19 19		N 1(a)					
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	0.0047	N/A ⁽³⁾					
The Dow Chemical Company	0.041	0.084					
General Chemical West, LLC	0.21	1.0					
GWF Power Systems L. P., Site I	0.0016	0.134					
GWF Power Systems L. P., Site V	0.0025	0.071					
Pacific Gas and Electric Company	0.00063	0.02					
Rhodia, Inc.	0.011	0.32					
San Francisco Airport Commission	0.051	0.087					
Mirant Delta, LLC	0.0078	0.165					
Mirant Potrero LLC	0.0031	0.032					
USS-Posco Industries	0.045	N/A ⁽³⁾					
Industrial Wastewater Discharger (Petroleum Refin	Industrial Wastewater Discharger (Petroleum Refinery):						
Chevron Products Company	0.34	0.075					
ConocoPhillips	0.13	0.075					
Shell Oil Products US and Equilon Enterprises LLC	0.22	0.075					
Tesoro Refining & Marketing Co.	0.11	0.075					
Valero Refining Company	0.08	0.075					
Total ⁽⁴⁾	1.3 ⁽⁴⁾	Not applicable					

Footnotes:

- (1) Compliance with the Average Annual Mercury Mass Limitations is determined annually for each Discharger each calendar year, and is attained if the sum of the individual Dischargers' mercury mass emissions, calculated as described below, is not greater than the aggregate mass emission limit of 1.3 kg/yr. If the sum of the individual Dischargers' mercury mass emission(s) is greater than 1.3 kg/yr, the Discharger(s) whose mercury mass emission(s) exceed(s) its (their) individual limitation, above, shall be deemed to be in violation of its (their) mercury mass limitation(s). For compliance determination, mass emissions shall be determined as defined below:
 - a. The total annual aggregate mass emission shall be the sum of the individual annual mass emissions from each Discharger. The sum shall be rounded to the nearest kilogram for comparison with the 1.3 kg/yr.
 - b. The annual average mass emission for each Discharger shall be computed for the period January 1 through December 31, annually.
 - c. The annual average mass emission for each Discharger listed in Table 8 above shall be the sum of monthly emissions on a calendar year basis and computed as follows:

Annual Mass Emission, $kg / year = \sum (Monthly Mass Emission Rates, kg / month)$

Or, for Dischargers with less than monthly mercury monitoring, the Annual Mass Emission shall be computed using the arithmetic average of available monthly mass emissions as follows:

$$Annual\ Mass\ Emission, kg\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions Calculated}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions Calculated}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions Calculated}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmissions}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Monthly MassEmission}\right) * 12mo\ /\ year = \left(\frac{\sum Monthly MassEmission, kg\ /\ mo}{Number of Mo$$

where

$$Monthly \, Mass \, Emission, kg \, / \, mo = \left(\frac{0.003785}{N}\right) * \left(\sum_{i=1}^{N} Q_{i}C_{i}\right) * 30.5 = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} Q_{i}C_{i}\right) * 30.5 = \frac{$$

and where

 C_i = mercury concentration of each individual sample, $\mu g/l$

 Q_i = Discharger flow rate on date of sample, millions of gallons per day (mgd)

N = number of samples collected during the month

 $0.003785 = \text{conversion factor to convert } (\mu g/I)^* (mgd) \text{ into kg/day}$

30.5 = number of days in a standard month

0.1154425= product of (conversion factor) (number of standard days per month)

and where Q_i for intermittent Dischargers [Dischargers who do not discharge every day in a calendar month, or have no discharge for an entire month ($Q_i = 0$)] shall be computed as follows:

$$Q_i = \begin{pmatrix} \sum_{d=1}^{D} Q_d \\ 30.5 \end{pmatrix}$$

where

Q_d = is the total flow for the day when discharge occurred, million gallons

D = total number of days where discharge occurred in a month

30.5 = number of days in a standard month

- d. For an industrial Discharger who uses treated recycled wastewater for industrial supply from a municipal Discharger named in this Order, the industrial Discharger shall subtract from its Monthly Mass Emission in c., above, an adjustment for the recycled water used and discharged through its discharge point as provided in Provision V.C.5 of this Order.
- (2) For compliance determination as defined in Section VI and Attachment A of this Order, the Discharger shall achieve the following, Minimum Level (ML).

Table 9. Minimum Levels

Constituent	Minimum Level	Units	
Mercury	0.0005	μg/L	

- (3) N/A means that a concentration-based limit is not applicable at this time.
- (4) Total differs slightly from the column sum due to rounding to two significant digits.

IV. RECEIVING WATER LIMITATIONS – Receiving water limitations are provided in each Discharger's individual NPDES Permits (see Attachment B).

V. PROVISIONS

A. Standard Provisions

The Dischargers shall comply with all Standard Provisions included in Attachment D of this Order, except for Standard Provisions V.D related to compliance schedules.

B. Monitoring and Reporting Program Requirements. The Dischargers shall comply with the Monitoring and Reporting Program (MRP), and future revisions thereto, in Attachment E of this Order. The Dischargers shall also comply with the requirements contained in Self-Monitoring Program, Part A (August 1993) (Attachment G), including any amendments thereto.

C. Special Provisions

1. Triggers for Additional Mercury Control

a. Each individual Discharger shall comply with C.1.c. of this Order if its discharge exceeds any of the applicable triggers described in Tables 10 and 11.

Table 10. Triggers for Municipal Dischargers

Type of Trigger	Average Monthly	Maximum Daily		
Concentration for Secondary Treatment Plants	0.041 μg/l	0.065 μg/l		
Concentration for Advanced Secondary Treatment Plants	0.011 μg/l	0.021 μg/l		
Mass Emission	Individual annual mass emission limit, as depicted in Table 6, above, and computed as a 12-month running average, as shown in C.1.b., below.			

Table 11. Triggers for Industrial Dischargers

Type of Trigger	Average Monthly	Maximum Daily	
Concentration	0.037 μg/l	0.062 μg/l	
Mass Emission	Individual annual mass emission limit, as depicted in Table 8, above, and computed as a 12-month running average, as shown in C.1.b., below.		

b. The running 12-month average mass emission shall be computed monthly for each calendar month as follows:

$$(12 - month Running Average, kg) = (Current Mass Emission, kg) + \sum (Previous 11 months' mass emissions, kg)$$

where the current mass emission is the emission for the current calendar month computed as shown in III.A. above.

c. Each Discharger who exceeds the applicable triggers listed in Table 10 or 11, above, shall comply with the following action requirements:

Table 12. Action Plan for Trigger Exceedance

Task	Deadline
i. Accelerated Sampling. As soon as the Discharger becomes aware of the exceedance, resample within 48 hours and commence weekly sampling for 3 weeks for a total of 4 samples. If all 4 samples show mercury levels below the triggers, return to routine sampling. If during the accelerated sampling, any of the samples are above either the concentration or mass trigger, proceed with action plan for mercury reduction and continue sampling monthly until the observed mercury discharge is below the trigger levels for 3 consecutive months, at which point the Discharger may return to routine monitoring and discontinue efforts under Task iii, below.	See deadlines in task description.
ii. Report Trigger Exceedance. The Discharger shall report to the Regional Water Board any exceedance of trigger levels in the cover letter of its Self-Monitoring Report, and the status of its plans and actions to accelerate monitoring and/or develop and implement an action plan for mercury reduction.	In the Self-Monitoring Report due 30 days after the end of the monitoring period.
iii. Action Plan for Mercury Reduction. Develop, submit, and implement an Action Plan that (1) evaluates the cause ¹ of the trigger exceedance(s); (2) evaluates the effectiveness of existing pollution prevention or pretreatment programs and methods for preventing future exceedances; (3) evaluates the feasibility and effectiveness of technology enhancements to improve treatment plant performance; and (4) evaluates other measures for preventing future exceedances. In addition, the Discharger shall identify in the Action Plan mercury reduction measures it will take along with an implementation schedule for those measures to correct current and prevent future trigger exceedances.	Within 60 days of the initial trigger exceedance
¹ Possible causes of exceedances include (but are not limited to) changes in reclamation, increases in the number of sewer connections, increases in infiltration and inflow (I/I), changes in the type or number of industrial, commercial, or residential sources, changes in the raw material used in manufacturing processes, changes in treatment system operation, or factors beyond the Discharger's control, such as a natural disaster, vandalism, illegal dumping, or extreme flood event.	
iv. Annual Reporting. The Discharger shall provide a status of its mercury reduction efforts in the annual Self-Monitoring Report. Additionally, as causes and corrective actions are identified, the Discharger shall amend or supplement its Action Plan as appropriate. Such changes shall be reported to the Regional Water Board in the Discharger's Annual Self-Monitoring Report.	Annually due February 1 st of each year.

2. Mercury Source Control Program for Municipal Dischargers

The Dischargers in Table 1A shall develop, implement, and document cost-effective pretreatment/pollution prevention reduction strategies for dental offices to manage

and reduce the amount of mercury amalgam that is discharged from dental offices into the public wastewater collection systems in accordance with the following:

- a. The target for this program is that 85% of dental offices in the region will be participating in an amalgam program within 5 years after approval of the TMDL. Within 2 years of the effective date of this Order, the municipal wastewater Dischargers (Table 1A) shall develop and begin to implement a dental amalgam program with the goal of achieving the target within five years.
- b. The municipal wastewater Dischargers in Table 1A shall estimate the dental amalgam collected (and describe the basis for its estimation) and describe any other mercury pollution prevention programs that are implemented and maintained by individual municipal wastewater dischargers. The municipal wastewater Dischargers shall provide this information to the Regional Water Board no later than June 30, 2012. The municipal wastewater Dischargers may collaborate to provide this information in a single report to satisfy this requirement for the entire group.

3. Additional Special Studies for Adaptive Management

The Dischargers in Tables 1A and 1B, or their agent(s), shall submit a work plan within one year of the effective date of this Order, to include an implementation schedule for the following activities:

- a. Conduct or cause to be conducted studies aimed at better understanding mercury fate, transport, the conditions under which mercury methylation occurs, and biological uptake in San Francisco Bay, its contiguous segments, and tidal areas; and
- Conduct or cause to be conducted studies to evaluate the presence or potential for local effects on fish, wildlife, and rare and endangered species in the vicinity of wastewater discharges

The work plan shall include annual progress reports, due April 1st to the Regional Water Board. This progress report shall be combined with any group compliance reporting required by IV.C. of the Monitoring and Reporting Program, Attachment E of this Order.

4. Risk Management

Dischargers shall develop and implement, or participate in, one or more of the following risk management programs to reduce mercury-related risks to humans and wildlife and quantify risk reductions resulting from these activities. The activities may be performed by a third party if the Dischargers wish to provide funding for this purpose. The risk management activities include:

a. Providing multilingual fish-consumption advice to the public.

- Informing the public on a regular basis about monitoring data and findings of environmental health professionals about the hazards of eating mercurycontaminated fish.
- c. Performing special studies needed to support health-risk assessment and risk communication.
- d. Investigating ways to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay caught fish, such as subsistence fishers and their families.

Mercury Discharge Adjustment for Recycled Wastewater Use by Industrial Dischargers

When an industrial Discharger named on Table 1B of this Order uses recycled wastewater from a municipal Discharger named on Table 1A of this Order, the industrial Discharger may, at its option, apply an adjustment (hereinafter Adjustment) to its mercury mass emission or discharge concentration when determining compliance with its concentration and mass limits specified in III.B. of this Order. The Adjustment shall be based on measured influent mercury levels from the recycled wastewater in accordance with the following:

- a. The Discharger shall sample and analyze the influent recycled wastewater and the effluent discharge at least monthly. Influent sampling shall include measurement of daily flow volume for the entire duration that Adjustments are applied. Influent sampling shall occur at an appropriate influent sampling station as identified in the Discharger's individual permit.
- b. The Discharger shall determine the time interval between introduction of a given constituent of concern in the influent recycled water and the first appearance of the constituent in the final effluent. The basis for this determination must be included in any calculation of Adjustment.
- c. Calculation of Mercury Discharge Adjustment.

Concentration Adjustment

Influent concentration multiplied by total influent recycled water flow volume for that monitoring interval will yield an influent mass, which is valid for that monitoring interval. This influent mass is then divided by the total effluent flow volume for the time interval following the appropriate time lag described in 5.b. above, for that monitoring period to give a concentration Adjustment that will apply for the monitoring interval. The monitoring interval is the time between sampling days. For example, monthly sampling yields a one month monitoring interval. An example follows:

ex. Mercury is monitored monthly. The lag time is Y days.

Step 1: {(Influent concentration of mercury in Recycled Wastewater) – (Influent concentration of mercury in potable water)} x (Total Influent Volume of Recycled Wastewater for the month) = (Influent mass of mercury from Recycled Wastewater)

Step 2: (Influent mass) ÷ (Total effluent discharge volume for the 30-day period, Y days after influent sampled) = (Concentration Adjustment to be subtracted from concentration of mercury in the discharge, valid for that month)

Mass Adjustment

Influent concentration multiplied by total influent recycled water flow volume for that monitoring interval will yield an influent mass, which is valid for that monitoring interval. This influent mass is divided by the number of days in that monitoring period to give a mass Adjustment that will apply for the monitoring interval. The monitoring interval is the time between sampling days. For example, monthly sampling yields a one month monitoring interval. A schematic example follows:

ex. Constituent B is monitored monthly. The lag time is Y days.

Step 1: {(Influent concentration of mercury in Recycled Wastewater) – (Influent concentration of mercury in potable water)} x (Total Influent Volume of Recycled Wastewater for the month) = (Influent mass of mercury in Recycled Wastewater)

Step 2: (Influent mass) ÷ (30.5, the number of days in a standard month) = (Mass Emission Adjustment to be subtracted from monthly mass emission for that month)

d. If an industrial Discharger opts to apply a Mass Emission Adjustment, the Regional Water Board shall transfer that Adjustment to the mass emission for the corresponding discharge interval from the municipal Discharger who is the producer and source of the recycled wastewater. If this reverse Adjustment results in calculated mass discharge levels above the municipal Discharger's Average Annual Mercury Mass Limit, and the Total Group mass limit as specified in III.A., that municipal Discharger is in violation of its mass limit and is subject to enforcement action by the Regional Water Board.

VI. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for mercury shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, a Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data.

When determining compliance with an average monthly effluent limit (AMEL) for priority pollutants and more than one sample result is available, the Dischargers shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- 1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- 2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

ATTACHMENT A - DEFINITIONS

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Total Maximum Daily Load (TMDL) is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

ATTACHMENT B - EXISTING ORDER NOS. AND NPDES PERMIT NOS.

Municipal Dischargers:

Discharger	NPDES Permit No.	Existing Order No. ¹	Existing Order Adoption Date	Existing Order Expiration Date
American Canyon, City of	CA0038768	R2-2006-0036	6/14/06	6/30/11
Benicia, City of	CA0038091	01-096 ²	8/15/01	7/31/06
Burlingame, City of	CA0037788	R2-2002-0027 ²	2/27/02	1/31/07
Calistoga, City of	CA0037966	R2-2006-0066	10/11/06	2/28/10
Central Contra Costa Sanitary District	CA0037648	R2-2007-008	1/23/07	3/31/12
Central Marin Sanitation Agency	CA0038628	R2-2007-007	1/23/07	3/31/12
Contra Costa County Sanitation District No. 5, Port Costa	CA0037885	R2-2003-0009	1/22/03	12/31/07
Delta Diablo Sanitation District	CA0038547	R2-2003-0114	12/03/03	1/01/09
East Bay Dischargers Authority	CA0037869	R2-2006-0053	8/09/06	9/30/11
Union S.D. Wet Weather Outfall	CA0038733	R2-2004-0002	1/21/04	2/28/09
Union S.D. Hayward Marsh	CA0038636	R2-2006-0031	5/10/06	5/09/11
Dublin San Ramon Services District	CA0037613	R2-2006-0054	8/09/06	9/30/11
City of Livermore	CA0038008	R2-2006-0055	8/09/06	9/30/11
LAVWMA Wet Weather Outfall	CA0038679	R2-2006-0026	4/12/06	6/08/11
East Bay Municipal Utilities Dist. WWTP	CA0037702	01-072 ²	6/20/01	5/31/06
EBMUD Wet Weather Facilities	CA0038440	R2-2005-0047	9/21/05	3/31/10
East Brother Light Station, Inc.	CA0038806	R2-2004-0079	9/15/04	11/30/09
Fairfield-Suisun Sewer District	CA0038024	R2-2003-0072	8/20/03	9/30/08
Las Gallinas Valley Sanitary District	CA0037851	R2-2003-0108	12/03/03	11/30/08
Marin County (Paradise Cove), Sanitary District No. 5 of	CA0037427	R2-2006-0037	6/14/06	6/30/11
Marin County (Tiburon), Sanitary District No. 5 of	CA0037753	R2-2002-0097	9/18/02	10/31/07
Millbrae, City of	CA0037532	01-143 ²	11/28/01	10/31/06
Mt. View Sanitary District	CA0037770	R2-2006-0063	9/13/06	5/17/10
Napa Sanitation District	CA0037575	R2-2005-0008	4/20/05	3/31/10
Novato Sanitary District	CA0037958	R2-2004-0093	11/17/04	12/31/09
Palo Alto, City of	CA0037834	R2-2003-0078	8/20/03	9/30/08
Petaluma, City of	CA0037810	R2-2005-0058	10/19/05	10/20/10
Pinole, City of	CA0037796	R2-2007-0024	3/14/07	5/31/12
Rodeo Sanitary District	CA0037826	R2-2006-0062	9/13/06	11/30/11
Saint Helena, City of	CA0038016	R2-2005-0025	6/15/05	4/27/10
San Francisco (Airport), City and County of	CA0038318	01-145 ²	11/28/01	10/31/06
San Francisco (Southeast Plant), City and County of	CA0037664	R2-2002-0073 ²	6/19/02	5/31/07
San Jose/Santa Clara, Cities of	CA0037842	R2-2003-0085	6/17/03	9/30/08
San Mateo, City of	CA0037541	01-071 ²	6/20/01	5/31/06
Sausalito-Marin City Sanitary District	CA0038067	00-060 ²	7/19/00	7/19/05
Seafirth Estates Company and Property Owners with the Seafirth Estates Subdivision	CA0038893	R2-2006-0082	12/13/06	2/29/12
Sewerage Agency of Southern Marin	CA0037711	01-070 ²	6/20/01	5/30/06
Sonoma Valley County Sanitary District	CA0037800	R2-2002-0046 ²	3/20/02	2/28/07
South Bayside System Authority	CA0038369	R2-2007-0006	1/23/07	3/31/12
South San Francisco and San Bruno, Cities of	CA0038130	R2-2003-0010	1/22/03	3/31/08
Sunnyvale, City of	CA0037621	R2-2003-0079	8/20/03	9/30/08

Discharger	NPDES Permit No.	Existing Order No. ¹	Existing Order Adoption Date	Existing Order Expiration Date
US Naval Support Activity, Treasure Island	CA0110116	R2-2004-0036	5/19/04	12/30/09
Vallejo Sanitation and Flood Control District	CA0037699	R2-2006-0056	8/09/06	9/30/11
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	CA0038539	01-144 ²	11/28/01	10/31/06
Yountville, Town of	CA0038121	R2-2004-0017	3/17/04	4/30/09

¹ The orders shown are for the primary permit reissuance and do not include permit amendments.

Industrial Dischargers:

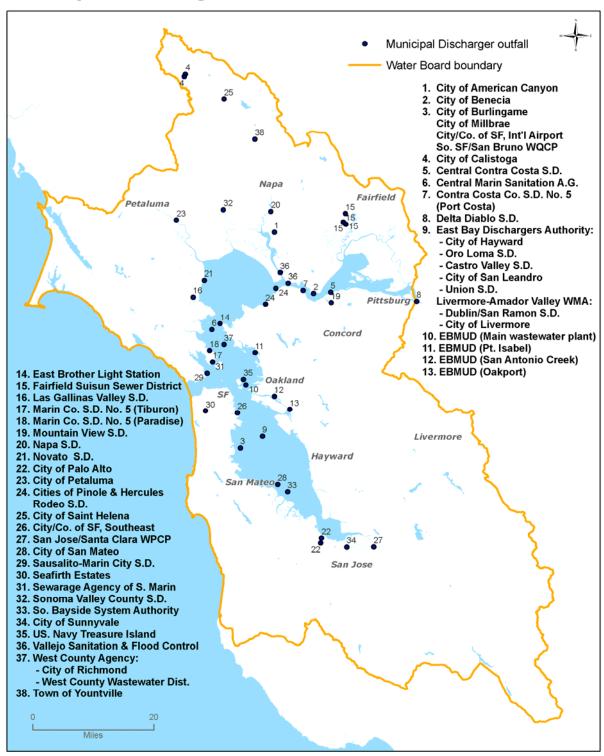
Discharger	NPDES Permit No.	Existing Order No.	Existing Order Adoption Date	Existing Order Expiration Date		
Industrial Wastewater Discharger (No	Industrial Wastewater Discharger (Non-Petroleum Refinery):					
C&H Sugar	CA0005240	00-025 ²	4/19/05	4/19/00		
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	CA0029904	R2-2004-0026	6/30/09	5/19/04		
The Dow Chemical Company	CA0004910	01-142 ²	11/28/01	10/31/06		
General Chemical West, LLC	CA0004979	R2-2002-0071 ²	6/19/02	5/31/07		
GWF Power Systems L. P. Site I	CA0029106	R2-2005-0018	5/18/05	4/19/10		
GWF Power Systems L. P. Site V	CA0029122	R2-2005-0019	5/18/05	4/19/10		
Pacific Gas and Electric Company (PG&E)	CA0030082	R2-2006-0010	2/8/06	3/31/11		
Rhodia, Inc.	CA0006165	R2-2004-0042	6/16/04	7/31/09		
San Francisco Airport Commission	CA0028070	R2 2002-0045 ²	3/20/02	2/28/07		
Mirant Delta, LLC	CA0004880	R2-2002-0072	6/19/02	5/31/07		
Mirant Potrero LLC	CA0005657	R2-2006-0032	5/10/06	12/31/08		
USS-Posco Industries	CA0005002	R2-2006-0029	5/10/06	6/30/11		
Industrial Wastewater Discharger (Pe	troleum Refinery)	:				
Chevron Products Company	CA0005134	R2-2006-0035	6/14/06	6/13/11		
ConocoPhillips	CA0005053	R2-2005-0030	6/15/05	8/31/10		
Shell Oil Products US and Equilon Enterprises LLC	CA0005789	R2-2006-0070	10/11/06	10/31/11		
Tesoro Refining & Marketing Co.	CA0004961	R2-2005-0041	9/21/05	11/30/10		
Valero Refining Company	CA0005550	R2-2002-0112 ²	10/16/02	11/30/07		

² The individual permits specified in these orders are scheduled for reissuance in 2007, prior to the effective date of this Order.

² The individual permits specified in these orders are scheduled for reissuance in 2007, prior to the effective date of this Order.

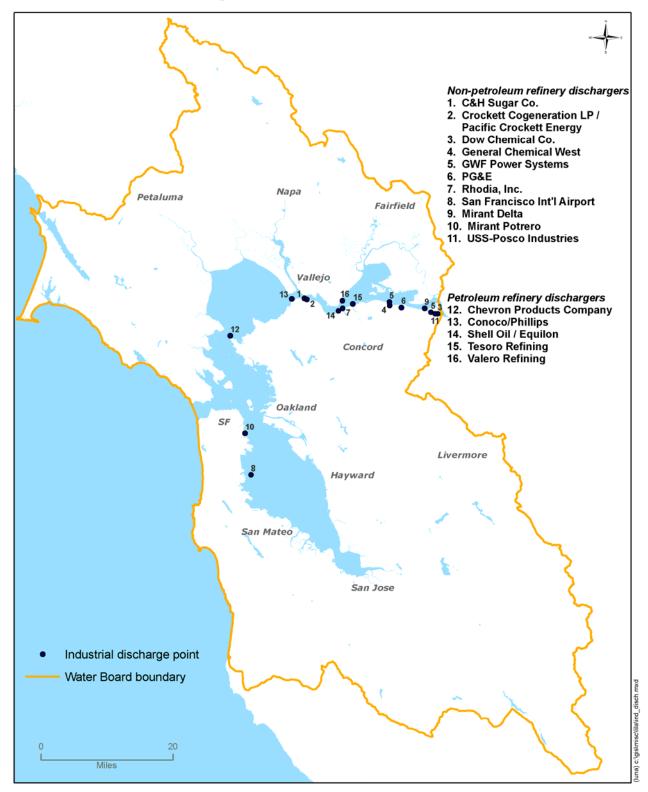
ATTACHMENT C - MAP OF MUNICIPAL AND INDUSTRIAL DISCHARGERS

Municipal Discharger outfall locations



Attachment C – Map C-1

Industrial Discharge Outfalls



Attachment C – Map C-1

ATTACHMENT D - STANDARD PROVISIONS

I. STANDARD PROVISIONS - PERMIT COMPLIANCE

A. Duty to Comply

- The Dischargers must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)
- 2. The Dischargers shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Dischargers shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Dischargers shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Dischargers shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

- Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));
- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));
- 3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and
- 4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)
- 2. Bypass not exceeding limitations. The Dischargers may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

- Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
- 4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

- a. Anticipated bypass. If a Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)
- b. Unanticipated bypass. A Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was

caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).).

- 2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)
- 3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS - PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Dischargers wish to continue an activity regulated by this Order after the expiration date of this Order, the Dischargers must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of a Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(I)(3); § 122.61.)

III. STANDARD PROVISIONS - MONITORING

- **A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- **B.** Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS - RECORDS

A. Except for records of monitoring information required by this Order related to a Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(i)(2).)

B. Records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));
- 2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
- 3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
- 4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
- 5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
- 6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

- 1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and
- 2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS - REPORTING

A. Duty to Provide Information

The Dischargers shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Dischargers shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

PLUS

For Industrial Dischargers that are corporations:

2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 C.F.R. § 122.22(a)(1).)

For Industrial Dischargers that are partnerships or sole proprietorships:

2. All permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

For a municipality, State, federal, or other public agency:

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).).

PLUS, for all Dischargers:

- 3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and
 - c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)
- 4. If an authorization under Standard Provisions Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)
- 5. Any person signing a document under Standard Provisions Reporting V.B.2 or V.B.3 above shall make the following certification:
 - "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

- 1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.22(I)(4).)
- 2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(I)(4)(i).)
- 3. If a Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(I)(4)(ii).)
- 4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(I)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(I)(5).)

E. Twenty-Four Hour Reporting

- 1. The Dischargers shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Dischargers become aware of the circumstances. A written submission shall also be provided within five (5) days of the time a Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(I)(6)(i).)
- 2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(I)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(I)(6)(ii)(A).)

- b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(I)(6)(ii)(B).)
- 3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(I)(6)(iii).)

F. Planned Changes

The Dischargers shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(I)(1)):

 The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

For Municipal Dischargers:

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(I)(1)(ii).)

For Industries:

- 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 C.F.R. § 122.41(I)(1)(ii).)
- 3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(I)(1)(iii).)

G. Anticipated Noncompliance

The Dischargers shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(I)(2).)

H. Other Noncompliance

The Dischargers shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(I)(7).)

I. Other Information

When a Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(I)(8).)

VI. STANDARD PROVISIONS - ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS - NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

- That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
 - a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));
 - b. 200 μg/L for acrolein and acrylonitrile; 500 μg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
 - d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)
- That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order,

if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):

- a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));
- b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
- c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
- d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

- 1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and
- 2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)
- 3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

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ATTACHMENT E - MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

- A. The Dischargers shall comply with the MRP for this Order as adopted by the Regional Water Board, and with all of the Self-Monitoring Program, Part A, adopted August 1993 (SMP, Attachment G of this Order). The MRP and SMP may be amended by the Executive Officer pursuant to US EPA regulations 40 CFR122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and SMP, the MRP prevails.
- **B.** Sampling is required during the entire year when discharging. All analyses shall be conducted using current US EPA methods, or that have been approved by the US EPA Regional Administrator pursuant to 40 CFR 136.4 and 40 CFR 136.5, or equivalent methods that are commercially and reasonably available, and that provide quantification of sampling parameters and constituents sufficient to evaluate compliance with applicable effluent limits. Equivalent methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer, following consultation with the State Water Board's Quality Assurance Program. The Regional Water Board will find a Discharger in violation of the limitation if the discharge concentration exceeds the effluent limitation and the Reporting Level for the analysis for that constituent.
- C. Minimum Levels. For compliance monitoring, analyses shall be conducted using the lowest commercially available and reasonably achievable detection levels. The objective is to provide quantification of constituents sufficient to allow evaluation of observed concentrations with respect to the Minimum Levels given below. All Minimum Levels are expressed as µg/L approximately equal to parts per billion (ppb).

According to the SIP, method-specific factors can be applied. In such cases, this additional factor must be applied in the computation of the Reporting Level. Application of such factors will alter the Reporting Level from the Minimum Level for the analysis. Dischargers are to instruct laboratories to establish calibration standards so that the Minimum Level value is the lowest calibration standard. At no time is a Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. The table below indicates the highest minimum level that the Discharger's laboratory must achieve for calibration purposes.

Constituent	Minimum Level	Units
Mercury	0.0005	μg/L

II. MONITORING LOCATIONS

The Dischargers shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
Discharge point indicated in individual NPDES permits for discharge from wastewater treatment plant (often but not always E-001)	Location as indicated in individual NPDES permits for mercury or other toxic pollutants For C&H Sugar Company, location is M-002. For Mirant Delta, LLC, locations are E-001B through to and including E-001I. For Mirant Potrero, LLC, location is E-001C. For San Francisco (Airport), location is EFF-001A.	As described in individual NPDES permits for mercury or other toxic pollutants

III. EFFLUENT MONITORING REQUIREMENTS

The Dischargers shall monitor mercury in effluent as shown in Table E-2 below and reported on the form included in the next section:

Table E-2. Mercury Monitoring Requirements

Parameter	Units ¹	Sample Type ²	Minimum Sampling Frequency ^{3,4}
			Monthly for Major Dischargers (see Table 1A and 1B)
			Quarterly for Minor Dischargers (see Table 1A and
Total mercury ⁵	µg/L	C-24 or Grab ⁶	1B), except as otherwise indicated below
Total moroary			Annually for
			East Brothers Light Station Inc.
			Marin County Sanitary District No. 5, Paradise Cove
			Seafirth Estates Company and Property Owners
			Quarterly for Dischargers with Average Annual Mass
	Methylmercury ⁷ μg/L	Grab	Limits greater than or equal to 0.08 kg/yr
Mothylmoroury ⁷			Semi-annually for Dischargers with Average Annual
Metrylinercury			Mass Limits between 0.08 and 0.04 kg/yr
			Annually for Dischargers with Average Annual Mass
			Limits less than or equal to 0.04 kg/yr

- (1) Unit Abbreviation: μ g/L = micrograms per liter
- (2) <u>Sample Type</u>: C-24 = 24-hour composite. 24-hour composites may be made up of discrete grab samples collected over a 24-hour period, or may be collected using automatic compositing equipment. If using compositing equipment, the Discharger shall implement all feasible ultra clean techniques to reduce sample contamination (such as use of ultra clean Teflon tubing).
- (3) <u>Intermittent or seasonal dischargers</u> shall collect samples during those months for which a discharge occurs.

- (4) Monitoring frequency: Monitoring frequency may be increased subsequent to reissuance of this Order.
- (5) <u>Total mercury:</u> The Dischargers shall use ultra-clean sampling (USEPA 1669), and ultra-clean analytical methods (USEPA 1631) for total mercury monitoring.
- (6) <u>Grab Samples</u> shall be collected coincident with composite samples collected for the analysis of other regulated parameters.
- (7) Methylmercury: These Dischargers shall use ultra-clean sampling (USEPA 1669) to collect unfiltered methylmercury samples, and ultraclean analytical methods (USEPA 1630/1631, Revision E) with a method detection limit of 0.02 ng/L.

IV. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Dischargers shall comply with all Standard Provisions (Attachments D and G) related to monitoring, reporting, and recordkeeping.

B. Individual Reporting in Self Monitoring Reports (SMRs)

- 1. At any time during the term of this permit, the State or Regional Water Board may notify the Dischargers to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Dischargers shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
- 2. The Dischargers shall submit mercury data collected as part of this Order in the regular monthly or quarterly Self Monitoring Reports, and in the annual Self Monitoring Reports required in each Discharger's individual permit. If a Discharger monitors mercury more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR. As required in each Discharger's individual permit, for those dischargers required to report monthly, monthly reports shall be due no later than 30 days after the end of each calendar month. For those dischargers required to report quarterly in its individual permit, quarterly reports shall be due 30 days after the end of each calendar quarter. Annual reports shall be due on February 1 following each calendar year.
- 3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On	Monitoring Period
Monthly	Effective date of permit	1 st day of calendar month through last day of calendar month

Quarterly	Effective date of permit	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31
Semiannually	Effective date of permit	January 1 through June 30 July 1 through December 31
Annually	Effective date of permit	January 1 through December 31

4. The Dischargers shall report with each sample result the applicable Minimum Level (ML) or Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

The Dischargers shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is a Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.
- 5. a. The Dischargers shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with effluent limitations. The Dischargers are not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Dischargers shall electronically submit the data in a tabular format as an attachment.
 - b. Additionally, for reporting in the annual Self Monitoring Report due February 1, each Discharger shall provide its mercury information on the forms shown at

the end of this section (pages E-9 through E-13) as an attachment to the cover letter for the annual report. Furthermore, by February 1, each Discharger shall send an additional copy of its completed forms to the Regional Water Board by email (in PDF), mail, or fax to the Attention: "SF Bay Mercury Watershed Wastewater Permit Compliance Reporting". This duplicate reporting is necessary to facilitate the Regional Water Board's compilation of the data for compliance determination with the group annual average limitation from all affected Dischargers. The reporting required in this subsection is waived if the Discharge participates in the Group Compliance Reporting described in IV.C, below.

- 6. Each Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs and any exceedances of trigger levels; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation or trigger level exceedance.
- 7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
ATTN: NPDES Wastewater Division

8. The Dischargers have the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. The Electronic Reporting System (ERS) format includes, but is not limited to, a transmittal letter, summary of violation details and corrective actions, and transmittal receipt.

C. Optional Group Compliance Reporting

As an alternative to IV.B.5.b. above, each Discharger at its option, may submit its annual mercury discharge forms to a regional entity, such as the

 Bay Area Clean Water Agencies (BACWA) for Dischargers listed in Table 4A of the Order, at

BACWA

P.O. Box 24055, MS 702

Oakland, CA 94623

Attention: SF Bay Mercury Watershed Wastewater Permit Compliance Reporting

or

 Western State Petroleum Association (WSPA) for Dischargers listed in Table 4B of the Order, at

WSPA

1415 L Street, Suite 600

Sacramento, CA 95814

Attention: SF Bay Mercury Watershed Wastewater Permit Compliance

Reporting

If the Discharger chooses this alternative, it shall indicate in the cover letter of its annual report due February 1st of its intent and commitment to do so by February 15th. **Each Discharger shall provide its mercury information on the form shown at the end of this section** by February 15th so as to allow the respective regional entity to provide compiled information to the Regional Water Board as indicated below. If the Discharger fails to meet its commitment, it will be subject to enforcement action by the Regional Water Board for failure to meet the February 1st reporting deadline and requirement.

1. Compliance Report of Mercury Discharge Levels

By April 1st of each year, the Dischargers' group will submit a report describing the group's mercury discharges for the preceding calendar year. The report will contain the following:

- Summary tables depicting each Discharger's annual and monthly flows, mercury concentrations, and mercury mass loads, calculated as described in Effluent Limitations III.A. and B. of the Order, and the sum of all the individual Dischargers' annual mass loads (if the Dischargers' group did not receive completed forms from the each group member, the sum should be left blank along with blank rows or columns left in the summary tables those group members);
- An analysis of the effluent data, including discussion of all statistical methods used;
- · A discussion of apparent trends in mercury loading of each Discharger; and
- An electronic file containing all the data, in a format compatible with the Regional Water Board's Electronic Reporting System or California Integrated Water Quality System.
- Copies of the completed forms from each Discharger who provided forms.

2. Report on Mercury Reduction Efforts

By April 1st of each year, the Dischargers' group will submit a report describing their mercury reduction efforts. This report will contain the following:

- a. A discussion of events that may have affected mercury loading for the preceding calendar year; and
- b. A description of mercury source control projects, planned or under way, including where applicable, but not limited to:
 - i. descriptions of project activities; and
 - ii. implementation schedules for planned source control projects; and
 - iii. estimates of mercury mass loads that can be avoided through program activities unrelated to normal treatment, summarized by activity if appropriate.

San Francisco Bay Regional Water Quality Control Board

Annual Mercury Information Reporting Form Part 1 of 3 – Basic Information

Complete and return all 3 parts of this form to the Regional Water Board no later than February 1st in your Annual Self Monitoring Report, to report on the previous calendar year. You must also mail, fax, or email PDF file of a second copy of this completed form to the address below. In lieu of this dual reporting to the Regional Water Board, you may complete one set of these forms and report through a group in accordance with MRP Section IV.C. (see page E-6).

San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612

Attention: SF Bay Mercury Watershed Wastewater Permit Compliance Reporting

Email: MercuryWasteWaterShed@waterboards.ca.gov

Fax: (510) 622-2460

Name of Discharger:		
NPDES Permit Number(s):		
Discharger Contact Person:		
Contact Person Phone Number:		
Contact Person Email:		
Calendar Year Reporting: (Example: for data collected in 2009, enter "2009")		
Certification:		
I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
Signature of Responsible Discharger Representative Date		
Print Name and Title		

San Francisco Bay Regional Water Quality Control Board

Annual Mercury Information Reporting Form Part 2 of 3 – Mercury Data

Discharger:	
Calendar Year Reporting:	Monitoring Station: Use separate Part 2 sheets for multiple monitoring stations

Month	Sample Date	Effluent Flow (mgd) Enter the effluent flow for only the days when mercury was sampled. For months not sampled for mercury, enter the average monthly flow for that month.	Mercury Concentration (µg/L) Only fill in boxes for month(s) so for month(s) not sampled. Onleasampled even	y provide total mass load if
Jan				
Feb				
Mar				
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Total				
Average				

Note: if more than one sample in a month at the same station, report flows and concentrations for all sample days above, and calculate average monthly mass load in accordance with the methodology described in Effluent Limitations III of this Order.

Comments on data (if any):

For Dischargers claiming an effluent credit for recycled wastewater use pursuant to Provision V.C.5 of the Order, please indicate the credit(s) that will be applied to the mass loads listed above, and show below the credit calculation and basis (use additional sheets if necessary)

San Francisco Bay Regional Water Quality Control Board

Annual Mercury Information Reporting Form Part 3 of 3 – Source Control Information

Di	scharger:
Ca	alendar Year Reporting:
1.	Discussion of any events that affected mercury loading for the calendar year:
2.	Description of mercury source control projects underway or planned. Each project shall include: (1) description of project activities; (2) implementation schedule(s); and (3) estimates of mercury mass loads that can be avoided through program activities unrelated to normal treatment, summarized by activity if appropriate.
	a. Projects completed or underway during the reporting year:
	 b. Projects planned for the near future (include information about expected schedule):

D. Discharge Monitoring Reports (DMRs)

- 1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Dischargers to electronically submit self-monitoring reports. Until such notification is given, major Dischargers (See Tables 1A and 1B in cover section of permit) shall submit mercury results as part of their discharge monitoring reports (DMRs) in accordance with the requirements described below.
- 2. DMRs must be signed and certified as required by the standard provisions (Attachment D). Each Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board	State Water Resources Control Board
Division of Water Quality	Division of Water Quality
c/o DMR Processing Center	c/o DMR Processing Center
PO Box 100	1001 I Street, 15 th Floor
Sacramento, CA 95812-1000	Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official US EPA preprinted DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

ATTACHMENT F - FACT SHEET

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ATTACHMENT F - FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information (information not already presented in this Order is shown in bold)

WDID	
Discharger	
Name of Facility	See Tables 1A and 1B attached to cover page above.
Facility Address	
Facility Contact, Title and Phone	See Tables 4A and 4B starting on page 3 above.
Authorized Person to Sign and Submit Reports	See Tables F-1A and F-1B below.
Mailing Address	See Tables 4A and 4B starting on page 3 above.
Billing Address	See Tables F-1A and F-1B below.
Type of Facility	See Tables 4A and 4B starting on page 3 above.
Major or Minor Facility	See Tables 1A and 1B attached to cover page above.
Threat to Water Quality	
Complexity	See Tables F-1A and F-1B below.
Pretreatment Program	
Reclamation Requirements	Not applicable.
Facility Permitted Flow	See Facility Design Flow below.
Facility Design Flow	See Tables 4A and 4B starting on page 3 above.
Watershed	San Francisco Bay
Receiving Water	See Tables F-1A and F-1B below.
Receiving Water Type	See Tables I TA dilu FTID below.

Table. F-1A. Additional Information on Municipal Facilities

Discharger	Authorized Person to Sign and Submit Reports	Billing Address (if different from mailing address)	Threat to Water Quality	Complexity	Pretreatment Program	Receiving Water Type
American Canyon, City of	Robert C. Weil, Public Works Director (707) 647-4550 Also Peter Lee	Same as mailing address	1	А	Y	Estuarine
Benicia, City of	Jerry Gall Superintendent (707) 746-4336	Same as mailing address	2	Α	Y	Estuarine
Burlingame, City of	Same as contact	Same as mailing address	2	Α	Y	Marine
Calistoga, City of	Paul Wade Public Works Director (707) 746-4336	Same as mailing address	2	В	N	Freshwater
Central Contra Costa Sanitary District	Same as contact	Same as mailing address	1	Α	Υ	Estuarine
Central Marin Sanitation Agency	Robert Cole Environmental Services Manager (415) 459-1455 ext. 142	Same as mailing address	2	А	Y	Estuarine
Contra Costa County Sanitation District No. 5, Port Costa	Same as contact	Same as mailing address	3	В	N	Estuarine
Delta Diablo Sanitation District	Same as contact	Same as mailing address	1	Α	Y	Estuarine
East Bay Dischargers Authority Hayward Water Pollution Control Facility San Leandro Water Pollution Control Plant Oro Loma/Castro Valley Sanitary Districts Water Pollution Control						
Plant Raymond A. Boege Alvarado Wastewater Treatment Plant Livermore-Amador Valley Water Management Agency (LAVWMA) Export and Storage Facilities Dublin San Ramon Services District Wastewater Treatment Plant City of Livermore Water Reclamation Plant	Charles V. Weir General Manager (510) 278-5910	Same as mailing address	1	А	Y	Marine

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Discharger	Authorized Person to Sign and Submit Reports	Billing Address (if different from mailing address)	Threat to Water Quality	Complexity	Pretreatment Program	Receiving Water Type
East Bay Municipal Utilities District	Same as contact	EBMUD Accounts Payable P.O. Box 23060 Oakland, CA 94623- 2306	1	А	Y	Marine
EBMUD – Wet Weather Facilities	Same as contact	EBMUD Accounts Payable P.O. Box 23060 Oakland, CA 94623- 2306	2	А	N	
East Brother Light Station, Inc. ¹	Same as contact	Same as mailing address	3	В	N	Estuarine
Fairfield-Suisun Sewer District	Same as contact	Same as mailing address	1	Α	Y	Estuarine
Las Gallinas Valley Sanitary District	Same as contact	Same as mailing address	2	Α	N	Estuarine
Marin County (Paradise Cove), Sanitary District No. 5 of	Tim O'Day Wastewater Facility Manager (415) 435-1501	Same as mailing address	3	В	N	Marine
Marin County (Tiburon), Sanitary District No. 5 of	Tim O'Day Wastewater Facility Manager (415) 435-1501	Same as mailing address	2	А	N	Marine
Millbrae, City of	Same as contact	Same as mailing address	2	Α	N	Marine
Mt. View Sanitary District	David R. Contreras District Manager (925) 228-5635 ext. 32	Same as mailing address	2	Α	N	Estuarine
Napa Sanitation District	Same as contact	Same as mailing address	1	Α	Y	Estuarine
Novato Sanitary District	Same as contact	Same as mailing address	2	Α	Y	Estuarine
Palo Alto, City of	Same as contact	Same as mailing address	1	Α	Y	Estuarine
Petaluma, City of	Same as contact	Same as mailing address	2	Α	Y	Estuarine
Pinole, City of	Same as contact	Same as mailing address	3	Α	N	Marine
Rodeo Sanitary District	Steven S. Beall Engineer-Manager (510) 799-2970	Same as mailing address	3	Α	N	Estuarine
Saint Helena, City of	Same as contact	Same as mailing address	2	В	N	Freshwater
San Francisco (Airport), City and County of	Ernie Eavis	676 McDonnell Road San Francisco, CA 94128	3	В	Y	Marine
San Francisco (Southeast Plant), City and County of	Gregory Mayer Operations Superintendent	Same as mailing address	1	А	Y	Marine

Attachment F – Fact Sheet F-4 F-4

Discharger	Authorized Person to Sign and Submit Reports	Billing Address (if different from mailing address)	Threat to Water Quality	Complexity	Pretreatment Program	Receiving Water Type
San Jose/Santa Clara, Cities of	Same as contact	Same as mailing address	1	Α	Υ	Estuarine
San Mateo, City of	Same as contact	Same as mailing address	1	Α	Y	Marine
Sausalito-Marin City Sanitary District	Same as contact	Same as mailing address	2	Α	N	Marine
Seafirth Estates Company and Property Owners within the Seafirth Estates Subdivision ¹	Bonner Buehler Plant Operator (415) 388-1345	Same as mailing address	3	В	N	Marine
Sewerage Agency of Southern Marin	Same as contact	Same as mailing address	2	Α	N	Marine
Sonoma Valley County Sanitary District	Same as contact	Same as mailing address	2	Α	N	Estuarine
South Bayside System Authority	Same as contact	Same as mailing address	1	Α	Y	Marine
South San Francisco and San Bruno, Cities of	Same as contact	Same as mailing address	1	Α	Y	Marine
Sunnyvale, City of	Same as contact	Same as mailing address	1	Α	Y	Estuarine
US Naval Support Activity, Treasure Island	Patricia McFadden Brac Field Team Leader OR Michael Mentink Environmental Coordinator	Same as mailing address	2	А	N	Marine
Vallejo Sanitation and Flood Control District	Ronald J. Matheson District Manager (707) 644-8949	Same as mailing address	1	Α	Y	Estuarine
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	E.J. Shalaby District Manager (510) 620-6538	Same as mailing address	2	А	Y	Estuarine
Yountville, Town of	Don Moore Wastewater Assistant System Supervisor (707) 944-2988	Same as mailing address	2	В	N	Freshwater

Attachment F – Fact Sheet F-5

Table. F-1B. Additional Information for Industrial Facilities

Discharger	Authorized Person to Sign and Submit Reports	Billing Address (if different from mailing address)	Threat to Water Quality	Complexity	Pretreatment Program	Receiving Water Type
Industrial Wastewater Discharger	(Non-Petroleum Refinery):					
C&H Sugar	Elizabeth M. Crowley Environmental Compliance Manager	Same as mailing address	2	А	N	Enclosed Bay
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	Don Burkard Plant Manager (510) 787-4155	Same as mailing address	2	В	N	Enclosed Bay
The Dow Chemical Company	Greg Dubitsky General Manager (925) 432-5154	Same as mailing address	2	Α	N	Enclosed Bay
General Chemical West, LLC	Brad Klock General Manager (925) 458-7359	Same as mailing address	2	В	N	Enclosed Bay
GWF Power Systems L. P., Site I	Neftali Nevarez (925) 431-1445	Same as mailing address	3	С	N	Enclosed Bay
GWF Power Systems L. P., Site V	Neftali Nevarez (925) 431-1445	Same as mailing address	3	С	N	Enclosed Bay
Pacific Gas and Electric Company (PG&E)	David Harnish Site Remediation Manager (925) 866-5882	Same as mailing address	3	В	N	Enclosed Bay
Rhodia, Inc.	Peter Jurichko Plant Manager	Same as mailing address	1	Α	N	Enclosed Bay
San Francisco Airport Commission	Ernie Eavis Deputy Airport Director	P.O. Box 8097, San Francisco, CA, 94128	1	А	N	Enclosed Bay
Mirant Delta, LLC	James P. Garlick, Sr. Vice President, Operations	Pittsburg Power Plant P.O. Box 192 Pittsburg, CA 94565	1	Α	N	Estuary
Mirant Potrero LLC	James P. Garlick, Sr. Vice President, Operations	Mirant Potrero, LLC, Potrero Power Plant, 1201-A Illinois Street San Francisco, CA 94107	2	А	N	Enclosed Bay

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Discharger	Authorized Person to Sign and Submit Reports	Billing Address (if different from mailing address)	Threat to Water Quality	Complexity	Pretreatment Program	Receiving Water Type
USS-Posco Industries	David Allen Regulations Manager (925) 439-6290	Same as mailing address	1	А	N	Enclosed Bay
Industrial Wastewater Discharger	(Petroleum Refinery):		•			
Chevron Products Company	J.G. Whiteside General Manager (510) 242-4400	Same as mailing address	1	А	N	Enclosed Bay
ConocoPhillips	J.M. Kenney Manager, San Francisco Refinery (510) 245-4415	Same as mailing address	1	А	N	Enclosed Bay
Shell Oil Products US and Equilon Enterprises LLC	Aamir Farid Refinery Manager (925) 313-3000	Same as mailing address	1	А	N	Enclosed Bay
Tesoro Refining & Marketing Co.	Alan Savage Environmental Manager (925) 335-3490	Same as mailing address	1	А	N	Enclosed Bay
Valero Refining Company	Marcus Cole Senior Environmental Engineer (707) 745-7807	Same as mailing address	1	А	N	Enclosed Bay

Attachment F – Fact Sheet F-7

- A. The Dischargers listed in this Order are currently discharging pursuant to the Order Nos. and National Pollutant Discharge Elimination System (NPDES) Permit Nos. as shown in Attachment B. This Mercury Watershed Permit implements the San Francisco Bay mercury Total Maximum Daily Load (TMDL) adopted by the Regional Water Board on December 13, 2006. The TMDL will be effective once USEPA approves it. Upon this Order's effective date, it will supersede mercury requirements in the Orders listed in Attachment B, or in the Orders that will be adopted by the Regional Water Board in reissuing the expired or expiring NPDES permits prior to the effective date of this Order.
 - For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Dischargers herein.
- **B.** The Dischargers listed in Table 1A of the Order own and operate secondary and advanced secondary wastewater treatment facilities as described in their respective Orders. The Dischargers listed in Table 1B of the Order own and operate wastewater treatment facilities as described in their respective Orders. Wastewater is discharged to San Francisco Bay and its tributaries, which are waters of the United States within the San Francisco Bay watershed. Attachment C shows a map of the dischargers subject to this Order.

II. FACILITIES DESCRIPTION

A. Description of Wastewater Treatment

Municipal wastewater treatment plants provide secondary treatment, which includes settling, filtration, and biological treatment. Some plants also provide advanced treatment, which removes additional solids. Removing additional solids removes additional pollutants, like mercury, that adhere to particles. Municipal wastewater treatment plants generally remove over 90% of the mercury in their influent. While the removed mercury is not directly discharged to water, some is returned to the environment through landfills, incinerators, or soil amendments. The primary sources of mercury in municipal wastewater are expected to be human waste and medical and dental facilities.

Industrial Dischargers include petroleum refineries, chemical plants, and other large industrial facilities. The mercury loads depend on the types of activities in which these Dischargers engage. The wastewater treatment facilities also vary depending on the activities. Individual permits, listed in Attachment B, provide further descriptions of treatment processes.

B. Discharge Points and Receiving Waters

The locations of discharge points are shown in Tables 4A and 4B of the Order, above. Treated wastewater is discharged to San Francisco Bay and its tributaries as indicated on Tables 2A and 2B of the Order.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effective effluent limitations contained in current individual permits for the Dischargers subject to this Order are shown in the table below. Information for each Discharger is available in the individual permit and monitoring reports for that Discharger. All limits are specified in ug/l.

Table F-2. Current Individual Permit Mercury Effluent Limits for Municipal Dischargers

Discharger	Average Monthly	Maximum Daily	
American Canyon, City of	0.021	0.039	
Benicia, City of	0.087		
Burlingame, City of	0.087		
Calistoga, City of	0.020	0.042	
Central Contra Costa Sanitary District	0.087	1.0	
Central Marin Sanitation Agency	0.087		
Contra Costa County Sanitation District No. 5, Port Costa	No limit be reasonable		
Delta Diablo Sanitation District	0.084		
East Bay Dischargers Authority – Combined Outfall	0.087		
Union S.D. Wet Weather Outfall		0.087	
Union S.D. Hayward Marsh	0.087		
LAVWMA Wet Weather Outfall	No limit because no reasonable potential		
East Bay Municipal Utilities Dist. – Main WWTP	0.087		
EBMUD – Point Isabel WWF		0.40	
EBMUD – San Antonio Creek WWF		1.0	
EBMUD – Oakport WWF		0.25	
East Brother Light Station, Inc.	No limit because no reasonable potential		
Fairfield-Suisun Sewer District	0.023		
Las Gallinas Valley Sanitary District	0.087		
Marin County (Paradise Cove), Sanitary District No. 5 of	No limit be- reasonable		
Marin County (Tiburon), Sanitary District No. 5 of	0.087		
Millbrae, City of	0.087		
Mt. View Sanitary District	0.021	0.038	
Napa Sanitation District	0.087		
Novato Sanitary District	0.087		
Palo Alto, City of	0.023		
Petaluma, City of	0.021	0.04	
Pinole, City of	0.087		
Rodeo Sanitary District	0.021	0.041	
Saint Helena, City of	0.08		
San Francisco (Airport), City and County of	0.087	1.0	
San Francisco (Southeast Plant), City and County of	0.087		

Discharger	Average Monthly	Maximum Daily
San Jose/Santa Clara, Cities of	0.012	2.1
San Mateo, City of	0.087 winter	
	0.023 summer	
Sausalito-Marin City Sanitary District	0.2	1
Seafirth Estates Company and Property Owners with the Seafirth Estates Subdivision	No limit because no reasonable potential	
Sewerage Agency of Southern Marin	0.087	1
Sonoma Valley County Sanitary District	0.087	1
South Bayside System Authority	0.023	0.034
South San Francisco and San Bruno, Cities of	0.087	
Sunnyvale, City of	0.012	2.1
US Naval Support Activity, Treasure Island	0.087	
Vallejo Sanitation and Flood Control District	0.087	
West County Agency (West County Wastewater District and City of Richmond Municipal Sewer District)	0.087	
Yountville, Town of	0.084	

Table F-3. Current Individual Permit Mercury Effluent Limits for Industries

Discharger	Average Monthly	Maximum Daily
Industrial Wastewater Discharger (Non-Petroleu	ım Refinery):	
C&H Sugar - 001	0.012	0.038
C&H Sugar - 001	0.21	1.0
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.		because no ble potential
The Dow Chemical Company	0.084	1
General Chemical West, LLC		1
GWF Power Systems L. P., Site I		0.134
GWF Power Systems L. P., Site V		0.071
Pacific Gas and Electric Company (PG&E)	0.02	0.041
Rhodia, Inc.		0.32
San Francisco Airport Commission	0.087	1
Mirant Delta, LLC	0.165	
Mirant Potrero LLC	0.032	
USS-Posco Industries	No limit because no reasonable potential	
Industrial Wastewater Discharger (Petroleum Re	efinery):	
Chevron Products Company	0.075	
ConocoPhillips	0.075	
Shell Oil Products US and Equilon Enterprises LLC	0.075	
Tesoro Refining & Marketing Co.	0.019	0.044
Valero Refining Company	0.075	

D. Compliance Summary

There have been no serious exceedances of mercury effluent limitations for the Dischargers in recent years.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges or mercury from the facilities listed in this Order to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The Regional Water Quality Control Board (Regional Water Board) adopted a Water Quality Control Plan for the San Francisco Bay Basin (Region 2) (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to San Francisco Bay Water are as follows:

Table F-4. Basin Plan Beneficial Uses

Receiving Water Name	Beneficial Use(s)
San Francisco Bay and Applicable Tributaries – See individual Order Nos. (Attachment B) for specific Beneficial Uses that apply.	Agricultural Supply (AGR), Cold Freshwater Habitat (COLD), Ocean, Commercial, and Sport Fishing (COMM), Estuarine habitat (EST), Industrial Service Supply (IND), Marine Habitat (MAR), Fish Migration (MIGR), Municipal and domestic Supply (MUN), Navigation (NAV), Industrial Process Supply (PROC), Preservation of Rare and Endangered Species (RARE), Water Contact Recreation (REC1), Noncontact Water Recreation (REC2), Shellfish Harvesting (SHELL), Fish Spawning (SPWN), Warm Freshwater Habitat (WARM)

Requirements of this Order implement the Basin Plan.

The Regional Water Board adopted a Basin Plan Amendment on December 13, 2006, that establishes new water quality objectives for mercury, and that establishes the San Francisco Bay Mercury TMDL to attain the new mercury objectives in San Francisco Bay and contiguous bay segments. The new objectives and TMDL become effective after approval by the State Water Board and USEPA. Elevated mercury concentrations currently exist in the tissues of fish, and methylmercury, a highly toxic form of mercury, is a persistent bioaccumulative pollutant. The mercury TMDL calls for reduction of mercury mass loadings to San Francisco Bay. Additional details regarding mercury sources to San Francisco Bay, and technical information related to the San Francisco Bay Mercury TMDL, are provided in the Fact Sheet. The purpose of this Order is to implement the San Francisco Bay Mercury TMDL wasteload allocations for Dischargers listed in Tables 1A and 1B.

- 2. State Implementation Policy. On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the California Toxics Rule and National Toxics Rule and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- 3. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal

antidegradation policies. The permitted discharges must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

4. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

D. Impaired Water Bodies on CWA 303(d) List

On June 6, 2003, the USEPA approved a revised list of impaired water bodies prepared by the State (hereinafter referred to as the 303(d) list), prepared pursuant to provisions of Section 303(d) of the Federal CWA requiring identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. San Francisco Bay is listed as an impaired waterbody for mercury. The SIP requires final effluent limitations for all 303(d)-listed pollutants to be based on total maximum daily loads and associated wasteload allocations.

San Francisco Bay is impaired for mercury because mercury contamination is adversely affecting existing beneficial uses, including sport fishing, preservation of rare and endangered species, and wildlife habitat. Mercury concentrations in San Francisco Bay fish are high enough to threaten the health of humans who consume them. In addition, mercury concentrations in some bird eggs harvested from the shores of San Francisco Bay are high enough to account for abnormally high rates of eggs failing to hatch.

The San Francisco Bay mercury TMDL was adopted by the Regional Water Board on August 9, 2006. The numeric targets, allocations, and associated implementation plan will ensure that all San Francisco Bay segments attain applicable water quality standards, including new mercury water quality objectives indicated in section IV.A.2. to protect and support beneficial uses.

The TMDL allocations and implementation plan focus on controlling the amount of mercury that reaches the Bay and identifying and implementing actions to minimize mercury bioavailability. The organic form of mercury (methylmercury) is toxic and bioavailable, but information on ways of controlling methylmercury production is limited. However, this is an area of active research and strategies for controlling this process are forthcoming. The effectiveness of implementation actions, monitoring to track progress toward targets, and the scientific understanding pertaining to mercury will be periodically reviewed and the TMDL may be adapted as warranted.

The mercury TMDL implementation plan has four objectives: (1) reduce mercury loads to achieve load and wasteload allocations, (2) reduce methylmercury production and consequent risk to humans and wildlife exposed to methylmercury, (3) conduct

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¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

monitoring and focused studies to track progress and improve the scientific understanding of the system, and (4) encourage actions that address multiple pollutants. The plan establishes requirements for Dischargers to reduce or control mercury loads and identifies actions necessary to better understand and control methylmercury production. In addition, it addresses potential mercury sources and describes actions necessary to manage risks to Bay fish consumers. The adaptive implementation section describes the method and schedule for evaluating and adapting the TMDL and implementation plan as needed to assure water quality standards are attained.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. Section 122.44(d) of the Code of Federal Regulations requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. Water quality-based effluent limitations are included in this permit to implement wasteload allocations which are part of the San Francisco Bay mercury TMDL.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The WQC and WQOs applicable to the receiving waters for this discharge are from the Basin Plan. A Basin Plan amendment adopted by the Regional Water Board on August 9, 2006, added two new mercury water quality objectives and vacated an outdated objective. The new objectives apply to all segments of San Francisco Bay, including all marine and estuarine waters contiguous to San Francisco Bay. The new objective to protect people who consume Bay fish applies to fish large enough to be consumed by humans. The objective is 0.2 mg mercury per kg fish tissue (average wet weight concentration measured in the muscle tissue of fish large enough to be consumed by humans). The proposed objective to protect aquatic organisms and wildlife applies to small fish (3–5 cm in length) commonly consumed by the California least tern, an endangered species. This objective is 0.03 mg mercury per kg fish (average wet weight concentration).

These two new objectives replace the water column four-day average marine mercury objective of $0.025~\mu g/L$, which no longer applies to San Francisco Bay waters. Effluent limitations, and provisions contained in this Order are designed to

implement the new objectives in accordance with the implementation provisions of the San Francisco Bay Mercury TMDL, based on available information.

3. Determining the Need for WQBELs

This Order contains WQBELs for mercury. As required by section 122.44(d)(1)(vii), the Regional Water Board is including WQBELs for mercury in this Order that are consistent with the assumptions and requirements of the San Francisco Bay Mercury TMDL wasteload allocation. Based on the water quality monitoring done at the time of the TMDL adoption, which set the wasteload allocation at the level necessary to attain water quality standards, the Regional Water Board has determined that the WQBEL is consistent with the assumptions of the TMDL. Similarly, compliance with the effluent limitations will satisfy the requirements of the TMDL.

The Regional Water Board has developed water quality-based effluent limitations for mercury pursuant to section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis. Similarly, the SIP at Section 1.3 recognizes that reasonable potential analysis is not appropriate if a TMDL has been developed.

4. WQBEL Calculations

WQBEL's are based on the established aggregate wasteload allocations of 11 kg/yr for municipal Dischargers and 1.3 kg/yr for industrial Dischargers which comprise a portion of the San Francisco Bay mercury TMDL. For the San Francisco Bay mercury TMDL, loads are expressed in terms of annual mercury loads in kilograms per year (kg/yr) because the adverse effects of mercury occur through long-term bioaccumulation. The loads are intended to represent long-term averages and account for long-term variability, including seasonal variability.

The San Francisco Bay mercury TMDL's initial aggregate load limit of 17 kg/yr and associated individual load limits for municipal Dischargers are shown in Table F-5 below. Also shown are the interim aggregate load limit and associated individual load limits applicable in 10 years, and final wasteloads allocations that apply in 20 years.

Table F-5. TMDL Mass Limits and Wasteload Allocations for Municipal Wastewater Dischargers

Permitted Entity	NPDES Permit	2000–2003 Initial Load Limit (kg/yr)	Interim Load Limit (kg/yr)	Final Allocation (kg/yr)
American Canyon, City of	CA0038768	0.12	0.095	0.095
California Department of Parks and Recreation Angel Island State Park	CA0037401	0.013	0.013	0.013
Benicia, City of	CA0038091	0.088	0.088	0.088
Burlingame, City of	CA0037788	0.089	0.089	0.089
Calistoga, City of	CA0037966	0.016	0.016	0.016
Central Contra Costa Sanitary District	CA0037648	2.23	1.8	1.3

Permitted Entity	NPDES Permit	2000–2003 Initial Load Limit (kg/yr)	Interim Load Limit (kg/yr)	Final Allocation (kg/yr)
Central Marin Sanitation Agency	CA0038628	0.18	0.15	0.11
Delta Diablo Sanitation District	CA0038547	0.31	0.25	0.19
East Bay Dischargers Authority	CA0037869	3.6	2.9	2.2
Dublin-San Ramon Services District (CA0037613) Hayward Shoreline Marsh (CA0038636) Livermore, City of (CA0038008) Union Sanitary District, wet weather (CA0038733)				
East Bay Municipal Utilities District	CA0037702	2.6 ^a	2.1	1.5
East Brother Light Station	CA0038806	0.001	0.000012	0.000012
Fairfield-Suisun Sewer District	CA0038024	0.22	0.17	0.17
Las Gallinas Valley Sanitary District	CA0037851	0.17	0.13	0.10
Marin County Sanitary District, Paradise Cove	CA0037427	0.00055	0.00055	0.00055
Marin County Sanitary District, Tiburon	CA0037753	0.0099	0.0099	0.0099
Millbrae, City of	CA0037532	0.052	0.052	0.052
Mountain View Sanitary District	CA0037770	0.034	0.034	0.034
Napa Sanitation District	CA0037575	0.28	0.23	0.17
Novato Sanitary District	CA0037958	0.079	0.079	0.079
Palo Alto, City of	CA0037834	0.38	0.31	0.31
Petaluma, City of	CA0037810	0.063	0.063	0.063
Pinole, City of	CA0037796	0.055	0.055	0.055
Contra Costa County, Port Costa WWTP	CA0037885	0.00072	0.00072	0.00072
Rodeo Sanitary District	CA0037826	0.060	0.060	0.060
Saint Helena, City of	CA0038016	0.047	0.047	0.047
San Francisco, City and County of, San Francisco Airport	CA0038318	0.032	0.032	0.032
San Francisco, City and County of, Southeast Plant	CA0037664	2.7	2.1	1.6
San Jose/Santa Clara WPCP	CA0037842	1.0	0.80	0.80
San Mateo, City of	CA0037541	0.32	0.26	0.19
Sausalito-Marin City Sanitary District	CA0038067	0.078	0.078	0.078
Seafirth Estates	CA0038893	0.00036	0.00036	0.00036
Sewerage Agency of Southern Marin	CA0037711	0.13	0.10	0.076
Sonoma Valley County Sanitary District	CA0037800	0.041	0.041	0.041
South Bayside System Authority	CA0038369	0.53	0.42	0.32
South San Francisco/San Bruno WQCP	CA0038130	0.29	0.24	0.18
Sunnyvale, City of	CA0037621	0.15	0.12	0.12
US Naval Support Activity, Treasure Island WWTP	CA0110116	0.026	0.026	0.026
Vallejo Sanitation & Flood Control District	CA0037699	0.57	0.46	0.34
West County Agency, Combined Outfall	CA0038539	0.38 ^c	0.30	0.23
Yountville, Town of	CA0038121	0.040	0.040	0.04
Total		17 b	14 ^b	11 ^b

Notes to Table F-5:

Bold text indicates advanced secondary treatment.

The San Francisco Bay mercury TMDL's wasteload allocations for industrial Dischargers, summing to 1.3 kg/yr, are shown in Tables F-6 and F-7 below.

Table F-6. TMDL Wasteload Allocations for Industrial (Non-Petroleum Refinery) Wastewater Discharges^c

Permitted Entity	NPDES Permit	Allocation (kg/yr)
C&H Sugar Co.	CA0005240	0.0013
Crockett Cogeneration	CA0029904	0.0047
The Dow Chemical Company	CA0004910	0.041
General Chemical	CA0004979	0.21 ^a
GWF Power Systems, Site I	CA0029106	0.0016
GWF Power Systems, Site V	CA0029122	0.0025
Hanson Aggregates, Amador Street	CA0030139	0.000005
Hanson Aggregates, Olin Jones Dredge Spoils Disposal	CA0028321	0.000005
Hanson Aggregates, Tidewater Ave. Oakland	CAA030147	0.000005
Pacific Gas and Electric, East Shell Pond	CA0030082	0.00063
Pacific Gas and Electric, Hunters Point Power Plant	CA0005649	0.020
Rhodia, Inc.	CA0006165	0.011
San Francisco, City and Co., SF International Airport Industrial WWTP	CA0028070	0.051
Southern Energy California, Pittsburg Power Plant	CA0004880	0.0078
Southern Energy Delta LLC, Potrero Power Plant	CA0005657	0.0031
United States Navy, Point Molate	CA0030074	0.013
USS-Posco	CA0005002	0.045
Total		0.4 b

Table F-7. TMDL Wasteload Allocations for Petroleum Refinery Wastewater Discharges

Permitted Entity	NPDES Permit	Allocation (kg/yr)
Chevron Products Company	CA0005134	0.34
ConocoPhillips	CA0005053	0.13
Martinez Refining Co. (formerly Shell)	CA0005789	0.22
Ultramar, Golden Eagle	CA0004961	0.11
Valero Refining Company	CA0005550	0.08
Total		0.9

Notes to Tables F-6 and F-7:

^a This allocation includes wastewater treatment and all wet weather facilities.

^b Total differs slightly from the column sum due to rounding.

^c Mercury monitoring data quality concerns pertaining to this Discharger will need to be addressed during the next review.

^a Data quality concerns pertaining to this Discharger will need to be addressed during the next review.

^b Total differs slightly from the column sum due to rounding.

^c Wasteload allocations for industrial wastewater discharges do not include mass from once-through cooling water. The Water Board will apply intake credits to once-through cooling water as allowed by law.

Because wastewater Dischargers regularly monitor and report their discharges, their combined loads can be estimated more precisely than any of the other loads estimated for the San Francisco Bay mercury TMDL. Available data are sufficient to allow statistical analyses that quantitatively characterize variations from year to year. Current load estimates were computed using available data on effluent mercury concentrations and effluent discharge volumes from 2000 through 2003.

In order to account for the inter-annual variability of discharge given the relatively short data period, current loading for the two wastewater discharge groups (municipal and industrial) was estimated as the upper 99% confidence intervals about the mean. The combined mercury load for all municipal wastewater discharges to San Francisco Bay and its tributaries is about 17 kg/yr. The combined load of the industrial Dischargers and petroleum refineries is about 1.3 kg/yr. Together, these wastewater discharges account for a load of about 18.3 kg/yr, or about 2% of the bay's total mercury load. If any aggregate mass limit is exceeded, the Regional Water Board will pursue enforcement actions against those individual dischargers whose mass discharges exceed their individual mass limits.

This Order does not contain requirements for the California Department of Parks and Recreation, Angel Island State Park, the PG&E Hunters Point facility, or the US Navy Point Molate facility, because the wastewater discharges from these facilities have ceased and the Regional Water Board has rescinded their NPDES permits. This Order also does not contain requirements for the three Hanson Aggregates facilities which currently are covered or will soon be covered in general NPDES permits. These facilities comprise a very small portion of the total wastewater mercury load to San Francisco Bay, mercury TMDL wasteload allocations may be implemented for these facilities in the future through separate actions.

In addition to the mass limits, which are based on wasteload allocations, this Order requires Dischargers to meet performance based concentration effluent limitations to ensure compliance with antidegradation. Additionally, consistent with the TMDL implementation plan, this Order specifies concentration and mass triggers and requires the Dischargers to take certain actions if any of these triggers are exceeded. Performance based concentration limits for municipal Dischargers and petroleum refinery industrial Dischargers were determined from pooled ultra-clean mercury data for POTWs throughout the Region (*Staff Report: Statistical Analysis of Pooled Data from Region-wide Ultra-clean Sampling, 2001*).

Performance based concentration limits for non-refinery Dischargers were determined for individual facilities rather than for the group due to the wide range of manufacturing and treatment processes at those facilities. For these Dischargers, this Order's retained the performance based concentration limits from Dischargers' previous individual permit. In some cases, previous individual permits specified only maximum daily limits which are retained in this Order as monthly average limits for consistency and simplicity throughout this Order. In two cases, performance limits are not included in this Order

because the individual permits for those two industrial dischargers found that there was no reasonable potential in those discharges. Future reissuances of the permit in this Order will reassess reasonable potential based on the data required by this Order.

Individual mercury mass and concentration effluent limitations are shown in Tables F-8 and F-9 below. These limitations are intended to minimize the potential for adverse effects in the immediate vicinity of discharges and to ensure that wastewater facilities maintain proper operation, maintenance, and performance.

Table F-8. Municipal -- Individual Mercury Effluent Limitations

Permitted Entity	Average Annual Mercury Mass Limit ^{1,2} (kg/yr)	Average Monthly Concentration-Based Effluent Limit ² (µg/L)
American Canyon, City of	0.12	0.023
Benicia, City of	0.088	0.087
Burlingame, City of	0.089	0.087
Calistoga, City of	0.016	0.087
Central Contra Costa Sanitary District	2.23	0.087
Central Marin Sanitation Agency	0.18	0.087
Delta Diablo Sanitation District	0.31	0.087
East Bay Dischargers Authority, including City	3.6	0.087
of Hayward, City of San Leandro, Oro Loma		
Sanitary District, Castro Valley Sanitary		
District, Union Sanitary District,		
Livermore-Amador Valley Water Management		
Agency (LAVWMA), Dublin San Ramon		
Services District, and City of Livermore		
East Bay Municipal Utilities District, including	2.6	0.087
Wastewater Treatment Plant and Wet Weather		
Facilities	0.00004	0.007
East Brother Light Station, Inc. ³	0.00001	0.087
Fairfield-Suisun Sewer District	0.22	0.023
Las Gallinas Valley Sanitary District	0.17	0.087
Marin County (Paradise Cove), Sanitary District No. 5 of	0.00055	0.087
Marin County (Tiburon), Sanitary District No. 5 of	0.0099	0.087
Millbrae, City of	0.052	0.087
Mt. View Sanitary District	0.034	0.023
Napa Sanitation District	0.28	0.087
Novato Sanitary District	0.079	0.087
Palo Alto, City of	0.38	0.023
Petaluma, City of	0.063	0.087
Pinole, City of	0.055	0.087
Contra Costa County Sanitation District No. 5,	0.0072	0.087
Port Costa	0.000	0.007
Rodeo Sanitary District	0.060	0.087
Saint Helena, City of	0.047	0.087
San Francisco (Airport), City and County of	0.032	0.087
San Francisco (Southeast Plant), City and County of	2.7	0.087
San Jose/Santa Clara, Cities of	1.0	0.023
San Mateo, City of	0.32	0.087
Sausalito-Marin City Sanitary District	0.078	0.087

Permitted Entity	Average Annual Mercury Mass Limit ^{1,2} (kg/yr)	Average Monthly Concentration-Based Effluent Limit ² (µg/L)
Seafirth Estates Company and Property	0.00036	0.087
Owners within the Seafirth Estates		
Subdivision ³		
Sewerage Agency of Southern Marin	0.13	0.087
Sonoma Valley County Sanitary District	0.041	0.087
South Bayside System Authority	0.53	0.087
South San Francisco and San Bruno, Cities of	0.29	0.087
Sunnyvale, City of	0.15	0.023
US Naval Support Activity, Treasure Island	0.026	0.087
Vallejo Sanitation and Flood Control District	0.57	0.087
West County Agency (West County	0.38	0.087
Wastewater District and		
City of Richmond Municipal Sewer District)		
Yountville, Town of	0.040	0.087
Total	17 ⁴	

Footnotes:

- (1) Compliance with the Average Annual Mercury Mass Limitations is determined annually for each Discharger each calendar year, and is attained if the sum of the individual Dischargers' mercury mass emissions, calculated as described below, is not greater than the aggregate mass emission limit of 17 kg/yr. If the sum of the individual Dischargers' mercury mass emission(s) is greater than 17 kg/yr, the Discharger(s) whose mercury mass emission(s) exceed(s) its (their) individual limitation(s) in Table 6, shall be deemed to be in violation of its (their) mercury mass limitation(s). For compliance determination, mass emissions shall be determined as defined below:
 - a. The total annual aggregate mass emission shall be the sum of the individual annual mass emissions from each Discharger. The sum shall be rounded to the nearest kilogram for comparison with the 17 kg/yr.
 - b. The annual average mass emission for each Discharger shall be computed for the period January 1 through December 31, annually.
 - c. The annual average mass emission for each Discharger listed in Table F-8 above shall be the sum of monthly emissions on a calendar year basis and computed as follows:

Annual Mass Emission, $kg / year = \sum (Monthly Mass Emission Rates, kg / month)$

where

Monthly Mass Emission,
$$kg = \left(\frac{0.003785}{N}\right) * \left(\sum_{i=1}^{N} Q_i C_i\right) * 30.5 = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} Q_i C_i\right)$$

and where

 C_i = mercury concentration of each individual sample, $\mu g/l$

 Q_i = Discharger flow rate on date of sample, millions of gallons per day (mgd)

N = number of samples collected during the month

 $0.003785 = \text{conversion factor to convert } (\mu g/l)^* (mgd) \text{ into } kg/day$

30.5 = number of days in a standard month

0.1154425= product of (conversion factor)·(number of standard days per month)

(2) This Order requires the Dischargers to achieve an analytical minimum level based on that specified in USEPA Method 1613.

Minimum Levels

Constituent	Minimum Level	Units
Mercury	0.0005	μg/L

- (3) This Discharger serves domestic customers but is not a municipal government agency.
- (4) Total differs slightly from the column sum due to rounding to the nearest kilogram.

Table F-9. Industrial -- Individual Mercury Effluent Limitations

Permitted Entity	Annual Average Mercury Mass Limit ^{1,2} (kg/yr)	Monthly Average Concentration-Based Effluent Limit ² (µg/L)	
Industrial Wastewater Discharger (Non-Petroleum	Refinery):		
C&H Sugar	0.0013	0.21	
Crockett Cogeneration, LP and Pacific Crockett Energy, Inc.	0.0047	N/A ³	
The Dow Chemical Company	0.041	0.084	
General Chemical West, LLC	0.21	1.0	
GWF Power Systems L. P., Site I	0.0016	0.134	
GWF Power Systems L. P., Site V	0.0025	0.071	
Pacific Gas and Electric Company (PG&E)	0.00063	0.02	
Rhodia, Inc.	0.011	0.32	
San Francisco Airport Commission	0.051	0.087	
Mirant Delta, LLC	0.0078	0.165	
Mirant Potrero LLC	0.0031	0.032	
USS-Posco Industries	0.045	N/A ³	
Industrial Wastewater Discharger (Petroleum Refin	Industrial Wastewater Discharger (Petroleum Refinery):		
Chevron Products Company	0.34	0.075	
ConocoPhillips	0.13	0.075	
Shell Oil Products US and Equilon Enterprises LLC	0.22	0.075	
Tesoro Refining & Marketing Co.	0.11	0.075	
Valero Refining Company	0.08	0.075	
Total	1.3		

Footnotes:

- (1) Compliance with the Average Annual Mercury Mass Limitations is determined annually for each Discharger each calendar year, and is attained if the sum of the individual Dischargers' mercury mass emissions, calculated as described below, is not greater than the aggregate mass emission limit of 1.3 kg/yr. If the sum of the individual Dischargers' mercury mass emission(s) is greater than 1.3 kg/yr, the Discharger(s) whose mercury mass emission(s) exceed(s) its (their) individual limitation(s) in Table 6, shall be deemed to be in violation of its (their) mercury mass limitation(s). For compliance determination, mass emissions shall be determined as defined below:
 - a. The total annual aggregate mass emission shall be the sum of the individual annual mass emissions from each Discharger. The sum shall be rounded to the nearest kilogram for comparison with the 1.3 kg/yr.

- b. The annual average mass emission for each Discharger shall be computed for the period January 1 through December 31, annually.
- c. The annual average mass emission for each Discharger listed in Table F-9 above shall be the sum of monthly emissions on a calendar year basis and computed as follows:

 $Annual \, \textit{Mass Emission}, \textit{kg / year} = \sum \left(\textit{Monthly Mass Emission Rates}, \textit{kg / month} \right)$

where

Monthly Mass Emission,
$$kg = \left(\frac{0.003785}{N}\right) * \left(\sum_{i=1}^{N} Q_i C_i\right) * 30.5 = \frac{0.1154425}{N} * \left(\sum_{i=1}^{N} Q_i C_i\right)$$

and where

 C_i = mercury concentration of each individual sample, $\mu g/l$

 Q_i = Discharger flow rate on date of sample, millions of gallons per day (mgd)

N = number of samples collected during the month

 $0.003785 = \text{conversion factor to convert } (\mu g/l)^* (mgd) \text{ into } kg/day$

30.5 = number of days in a standard month

0.1154425= product of (conversion factor) (number of standard days per month)

(2) This Order requires the Dischargers to achieve an analytical minimum level based on that specified in USEPA Method 1613.

Minimum Levels

Constituent	Minimum Level	Units
Mercury	0.0005	μg/L

- (3) N/A means that a concentration-based limit is not applicable at this time because the current individual permit for this Discharger finds no reasonable potential for this discharge to cause or contribute to an exceedance of water quality objectives. During the next renewal of this permit, a performance-based concentration limit will be established if reasonable potential is found or if the Discharger has exceeded concentration trigger levels at any time during this permit term.
- (4) Total differs slightly from the column sum due to rounding.

5. Satisfaction of Anti-Backsliding Requirements

For water quality based effluent limits, Section 303(d)(4) of the CWA provides different criteria for exceptions to anti-backsliding, depending on whether the receiving waters are in attainment. For nonattainment waters, water quality-based effluent limitations may be relaxed as long as: (1) the existing effluent limitation is based on a TMDL or other wasteload allocation, and (2) the cumulative effect of such revisions assures attainment of the water quality standard.

For the current individual permits that specify water quality based effluent limits for mercury, Section 303(d)(4) allows relaxation of those limits because the annual average mass limits in this Order are based on the wasteload allocations in the San Francisco Bay mercury TMDL, and the implementation of this TMDL will assure attainment of the water quality standard for mercury. An example of where this applies is the current individual permit for Tesoro Refining and Marketing Co. The

mercury water quality based limits for Tesoro are concentration based and may, under certain circumstances, be more stringent than this Order's annual average mass limit. However, because this Order's annual average mass limit is based directly on the San Francisco Bay Mercury TMDL wasteload allocation, the relaxation from current water quality based concentration limits is allowed by Section 303(d)(4).

This Order also establishes performance based monthly average concentration limits. Most current individual permits' specify performance based concentration and mass limits. Because it is difficult to directly compare performance based mass limits with the performance based concentration limits in this Order, it is reasonable to equate each current individual permit's performance based concentration limit with its corresponding performance based mass limit.

In general, antibacksliding is satisfied for the performance based limits in this Order because they are equivalent to, or more stringent than, the performance based concentration limits in current individual permits for those Dischargers. In the 10 out of 45 individual permits where the two are not equal, the difference is usually very minor and insignificant (ex. 84 ug/l v. 87 ug/l). So, for consistency, simplicity, and to facilitate enforcement, the performance based limit for the group is specified in this Order.

6. Satisfaction of Antidegradation Policy

The Order's mercury effluent limitations, which implement wasteload allocations, have been computed to satisfy the total maximum daily load that will allow the San Francisco Bay to come into attainment with water quality objectives. This Order includes requirements that are part of an overall comprehensive plan to restore mercury levels in San Francisco Bay. Because the TMDL is consistent with protecting existing instream water uses and the level of water quality necessary to protect the existing uses, antidegradation requirements are satisfied. Furthermore, this Order specifies performance based effluent limits that will assure compliance with antidegredation.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS – No additional receiving water limits beyond those already specified in the Dischargers' individual permits are necessary in this Order.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

The mercury TMDL contains a requirement to "prepare an annual report that documents mercury loads from each facility, mercury and methylmercury effluent concentrations, and ongoing source control activities, including mercury loads avoided through control actions." Dischargers are therefore required by this Order to report mercury discharge levels and trends, and mercury reduction measurements in Self-Monitoring Reports to facilitate the adaptive management process for implementation of the San Francisco Bay mercury TMDL. A special form is provided for use in compiling information for determining compliance with the group mass limit. Duplicate reporting using the form is required which the Regional Water Board's timely determination of compliance with the group mass limit. Incentive is provided for the optional group reporting by eliminating the duplicative reporting requirement, and allowing the Dischargers a little more time to provide the data. This optional group reporting facilitates adaptive management, and also consolidates the information in one place for ease of access by the public.

The monitoring frequencies specified in the MRP are dependent on each Discharger's contribution of mercury, and its resources to conduct the monitoring. For example, those with higher mercury limits and/or are major dischargers are required to monitor more frequently.

The Regional Water Board finds that these monitoring and reporting requirements bear a reasonable relationship to the Regional Water Board's need for and the benefits obtained from the reports.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Dischargers must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. Standard Provisions section V.D does not apply in this Order because it pertains to compliance schedule which is not required in this Order.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Triggers for Additional Mercury Control

Mass and concentration triggers were developed to allow for early required actions in the event an increasing trend in mercury discharge is observed by individual Dischargers. The purpose of the triggers is to evaluate the source of new mercury and identify a method for reduction before levels become elevated.

Consistent with the TMDL, mass triggers for municipal and industrial Dischargers are equivalent to the individual mass limits stated in the Order, but determined monthly, instead of annually, using a rolling 12-month average. This is necessary in order to capture any increases in a more timely fashion to allow development and implementation of reduction measures that may avoid an actual effluent limit violation.

For concentration triggers, there are two broad categories of municipal facilities—those that provide secondary treatment, and those that provide advanced treatment. Facilities providing advanced treatment have better performance, hence lower effluent concentrations than those providing secondary treatment, so the trigger concentrations for advanced facilities are lower than those for secondary treatment facilities.

Consistent with the TMDL implementation plan, the proposed effluent mercury concentration trigger values for municipal secondary treatment facilities are a daily maximum of $0.065~\mu g/l$ total mercury (derived from the 99th percentile concentration of effluent data collected from January 2000 to September 2002) and a monthly average of $0.041~\mu g/l$ total mercury (derived from the 95th percentile concentration of effluent data collected from January 2000 to September 2002). For facilities providing advanced treatment, the proposed concentration triggers are a daily maximum of $0.021~\mu g/l$ total mercury (the 99th percentile concentration).

Consistent with the TMDL implementation plan, the proposed effluent trigger concentrations for industrial Dischargers are a daily maximum of 0.062 μ g/l total mercury (derived from the 99th percentile concentration of effluent data collected from January 2000 to September 2002) and a monthly average of 0.037 μ g/l total mercury (derived from the 95th percentile concentration of effluent data collected from January 2000 to September 2002).

Consistent with the TMDL if a Discharger exceeds either the mass or concentration trigger, the Order requires the Discharger to report the exceedance in its individual Self-Monitoring Report, and to submit a report that:

- Evaluates the cause of the trigger exceedances;
- Evaluates the effectiveness of existing pollution prevention or pretreatment programs and methods for preventing future exceedances;
- Evaluates the feasibility and effectiveness of technology enhancements to improve plant performance.

The Regional Water Board will pursue enforcement action against Dischargers that do not respond to exceedances of triggers or do not implement actions to correct and prevent trigger exceedances. Determination of appropriate actions will be based on an updated assessment of source control measures and wastewater treatment technologies applicable for the term of each issued or reissued permit.

2. Mercury Source Control Program for Municipal Dischargers

The mercury TMDL includes a requirement to "develop and implement effective programs that include but are not limited to pollution prevention to control mercury sources and loading, a plan and schedule of actions and effectiveness measures applicable for the term of the permit, based on identification of the largest and most controllable sources and an updated assessment of source control measures and wastewater treatment technologies (the level of effort shall be commensurate with the mercury load and performance of the facility) and quantify the mercury load avoided or reduced..." Therefore, this Order contains requirements for source control. Dischargers are responsible for investigating the sources and strategies for controlling those sources. However, a major source of mercury to wastewater treatment plants is from dental offices, and efforts are already underway by municipal wastewater facilities to manage and reduce the amount of mercury amalgam that is discharged from dental offices into the public collection systems. The target for this program is that 85 percent of dental offices in the region will be participating in an amalgam program five years after full adoption of the TMDL.

3. Additional Special Studies for Adaptive Management

The potential availability of wastewater mercury for methylation and biological uptake, and possible local effects of such discharges, is not well understood. Consistent with the TMDL, this Order requires Dischargers to undertake or otherwise support studies to evaluate local impacts and bioavailability. If evidence of local effects from wastewater effluent is discovered, or if municipal wastewater facilities significantly contribute to mercury concentrations in the food web, the Regional Water Board may impose discharge restrictions aimed at minimizing or avoiding adverse impacts.

Due to the uncertainties in assessing the nature of sources and impacts of mercury, the TMDL was designed with an adaptive management approach. In particular, the TMDL implementation plan specifies requirements for Dischargers to:

- Conduct or cause to be conducted studies aimed at better understanding mercury fate, transport, the conditions under which mercury methylation occurs, and biological uptake in San Francisco Bay and tidal areas, and
- Conduct or cause to be conducted studies to evaluate the presence or potential for local effects on fish, wildlife, and rare and endangered species in the vicinity of wastewater discharges

Consistent with the adaptive management approach, after the activities in the initial years of the permit for evaluating group mercury discharges, collecting

methylmercury data of wastewater effluent, conducting source control programs, and engaging in risk management, this Order requires the development of a work plan by Dischargers within the permit term to conduct or participate in management studies. It is intended that information gathered to date will be used to begin the process of evaluating sources and impacts of mercury to identify next steps to control mercury in San Francisco Bay.

These studies may be undertaken by BACWA or WSPA on the Dischargers' behalf, or by such other agents (e.g., CEP, Regional Monitoring Program) as may exist or come into existence for this purpose. The Dischargers are collectively and individually responsible for undertaking such studies. It is the intent of the Regional Water Board to maximize the use of existing programs and resources for monitoring and research efforts.

4. Risk Management

Another implementation activity included in the mercury TMDL is to collaborate with other California agencies to help manage the risk to consumers of mercury-contaminated fish from San Francisco Bay. We envision a multi-phase process to develop a regional risk management strategy. The first phase should focus on identifying specific risk-management needs, the appropriate measures to address those needs, and the associated costs and mechanisms to implement the measures. In this effort, the Regional Water Board will work with the California Office of Environmental Health Hazard Assessment, the California Department of Health Services, and other organizations including Dischargers that pursue risk management as part of their mercury-related programs. The risk management activities will include the following:

- e. Providing multilingual fish-consumption advice to the public. Fish-consumption advisories can be effective for reducing exposure of humans to methylmercury. Existing and future monitoring data should be analyzed to determine what species of fish contain the highest amount of methylmercury. It may even be appropriate to develop information on replacement food sources for those subsisting on Bay fish. The fish consumption advice prepared using such information should be communicated through a variety of mechanisms: direct outreach to the community, broadcast and print media, and signs posted at popular fishing locations.
- f. Regularly informing the public about monitoring data and findings of environmental health professionals about the hazards of eating mercury-contaminated fish. It may be appropriate also to distribute information to health care providers serving impacted communities about how to recognize mercury-related health impacts. Monitoring data, combined with information from special studies, can be used to identify priority areas and target groups for outreach and education efforts, which should also communicate the health benefits of eating fish that contain less mercury. Here too the information needs to be conveyed to consumers of Bay fish through a variety of media and languages.

- g. Performing special studies needed to support health-risk assessment and risk communication. These studies may include estimation of rates and patterns of fish consumption, characterization of groups with potentially high levels of exposure, identification of effective methods for communicating advice, and evaluation of effectiveness of fish-consumption advisories.
- h. Investigate ways to address public health impacts of mercury in San Francisco Bay/Delta fish, including activities that reduce actual and potential exposure of and mitigate health impacts to those people and communities most likely to be affected by mercury in San Francisco Bay caught fish, such as subsistence fishers and their families.

Consistent with the TMDL, the Dischargers are required to participate in one or more of these programs to reduce mercury-related risks to humans and wildlife and quantify risk reductions resulting from these activities. The activities may be performed by a third party if the Dischargers wish to provide funding for this purpose.

5. Effluent Discharge Adjustment for Recycled Wastewater Use by Industrial Dischargers

As dictated by California Water Code sections 13510 through 13512, the Regional Water Board should support and encourage water recycling facilities. The use of recycled wastewater preserves fresh potable water supply sources. The effluent discharge adjustment (or Adjustment) provided in this Order is to avoid penalizing Dischargers who use recycled wastewater in its industrial processes, and is based on the principals outlined in the Basin Plan at 4.6.1.1. It is also similar to an existing provision in the individual permits for the petroleum refineries.

The Adjustment is only applicable if the mercury in the recycled wastewater is ultimately discharged through the industrial discharger's outfall. The Adjustments are calculated based on a mass balance principals and will thus not result in any net increase in mercury loadings to the Bay. The mass Adjustment subtracted from one industrial discharger, is then added to the municipal discharger who supplied the recycled wastewater and who would have otherwise discharged that mercury through its municipal treatment plant discharge outfall. Furthermore, the discharge locations for the two will be to the same receiving water body because the cost of water transport between facilities that are very far apart would make the reuse project infeasible.

A concentration Adjustment is also provided because a typical reuse project involves use of the recycled wastewater in cooling towers or boilers where the concentration of mercury increases through evaporative losses. The blowdown would go to the industrial discharger's sewer and potentially elevate its discharge concentration. Since the concentration limit is established based on past performance, future recycled wastewater use could impact the industrial discharger's compliance with the performance limit. Therefore, a concentration Adjustment is provided. Unlike the mass Adjustment, it is inappropriate to apply the concentration Adjustment in reverse to the

municipal discharger because the reason for the Adjustment is to account for evaporative losses. These losses occur at the industrial facility and do not affect the municipal discharger's performance.

Currently, the only reuse projects where an Adjustment would be applied is between Chevron and the West County Wastewater District. Chevron currently uses about 3 million gallons per day of recycled wastewater. A new reuse project is scheduled to go on line in 2007 that will bring the amount to over 4 million gallons per day. West County Wastewater District discharges through a joint outfall with the City of Richmond under the West County Agency NPDES permit. Based on this provision, any mass Adjustment subtracted from Chevron would be added to the mass emission reported by the West County Agency prior to determining compliance with the average annual mass limit.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will supersede mercury requirements in existing National Pollutant Discharge Elimination System (NPDES) permits. As a step in the WDR adoption process, the Regional Water Board staff has developed this tentative WDR. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharges and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following (a) paper copies of this Order were relayed to the Dischargers and other interested parties, and (b) the San Francisco Chronicle published a notice that this item would appear before the Regional Water Board in March 2007.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning this Tentative Order. Comments must be submitted either in person or by mail to the attention of **Lila Tang** at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by **5:00 p.m. on Monday, April 16, 2007.**

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **June 13, 2007**

Time: 9:00 am

Location: Elihu Harris State Office Building

1515 Clay Street, 1st Floor Auditorium

Oakland, CA 94612

Contact: Lila Tang, (510)622-2425, ltang@waterboards.ca.gov

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge and Tentative Order. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is www.waterboards.ca.gov/sanfranciscobay where you can access the current agenda for changes in dates and locations. Regional Water Board agenda material including staff's responses to written comments, and revisions to the Tentative Order will be posted at this website no later than one week prior to the hearing date.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final Order. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board Office of Chief Counsel P.O. Box 100, 1001 I Street Sacramento, CA 95812-0100

E. Information and Copying

The San Francisco Bay Mercury TMDL, Tentative Order, related documents, any comments received, and other information are available at www.waterboards.ca.gov/sanfranciscobay. These documents are also on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., except from noon to 1:00 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (510) 622-2300.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this permit, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Lila Tang at (510)622-2425, or by email at ltang@waterboards.ca.gov.